Defining good public participation processes under the Environment and Planning Act

Perspectives from stakeholders

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TU Delft

Drees & Sommer

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by

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TU Delft DREES & SOMMER

Preface

This master thesis explores the subject of public participation processes in the context of the Environment and Planning Act in the Netherlands. The topic perfectly combines my interests in legislation and the built environment, and it just so happened that timing-wise my graduation process coincided with the implementation of new national legislation. This thesis wraps up my time as a student in Delft, which began a little more than six years ago.

A big thank you to Drees & Sommer Netherlands for the opportunity to do my thesis research with them. It was a pleasant environment in which I enjoyed working, and I also very much appreciated getting to look behind the scenes of a project management company. Thanks to all the connections who helped me get in contact with the right people. I would particularly like to thank the person who provided me with the contact information of most of these respondents. They've almost single-handedly enabled this entire research by doing so, and though I will not name them to guarantee their anonymity, their contribution is greatly appreciated. Next, of course, a special thanks to the people who took the time to complete my survey because without them this research would have been quite literally impossible.

I would like to thank my graduation committee. First, my supervisors from the university. Maarten Kroesen, thank you for the many quick online support meetings on short notice when I had software-related questions. Fred Hobma, you brought a sometimes much-needed calmness to the meetings that gave me confidence in my own abilities and research. Martijn Leijten, your critical eye challenged me to look at my research from different angles, which I believe has greatly improved this thesis. Next, my supervisors from Drees & Sommer, Kübra Oztürk and Linda Verboom. Many thanks for the weekly check-ins, constant availability for questions, input resulting from those questions, and positive attitude toward and confidence in my research during all meetings.

Last, but definitely not least, I would like to thank my family, friends, and roommates for their support, study sessions, coffee breaks, and willingness to discuss my research when I had my doubts about something.

I hope you enjoy reading this thesis.

A.J. Kalb
Delft, April 2024

Executive summary

On January 1st 2024, the Environment and Planning Act (EPA) took effect in the Netherlands. This legislation aims to simplify existing environmental legislation for spatial projects by combining them into one. An important pillar of the EPA, specifically of the environmental permit, is public participation. However, the safeguarding of this in the law is limited since its organization is not regulated. In general, the methods for involving the public in environmental decision-making remain contentious, which has previously led to research into principles that define good public participation processes. The majority of the literature assumes that all parties involved in a process share the same principles, while it may be the case that stakeholders hold differing views on what constitutes a good process. In the EPA, a conscious choice was made to prohibit municipalities from imposing requirements on initiators on how they implement participation, the reason for this being enabling local customization. Yet, this uncertainty regarding the best practices for public participation can make it difficult for an initiator to set up participation for their project. This research aimed to gain insight into what constitutes a good public participation process by determining if and how stakeholders characterize this differently, specifically for real estate construction in residential areas. Therefore, the research question was as follows: *What perspectives exist on what constitutes a good public participation process for real estate construction projects in residential areas and what characterizes the stakeholders within these perspectives?*

Q-methodology was used to extract 42 stakeholders' views on successful participation. The first step in using this method was determining the Q-set: the complete list of aspects relevant to good participation. This was done by conducting a literature review, resulting in the identification of 490 aspects that can be used to determine the success of a participation process. Through iteratively sorting these into categories, combining similar ones, and consulting with participation advisors, this number was brought down to 41 aspects. The stakeholders were then asked to rank these aspects on a fixed grid ranging from 'most important for good participation' to 'least important for good participation'. Each stakeholder's filled-out grid is called a Q-sort and shows that person's view regarding the importance they contribute to each aspect relative to the other ones. A precondition was set on the participants of this research, which was that they had to have previously been involved in at least one participation process. Since two of the participants did not meet this precondition, the final input data for the next step of the Q-methodology consisted of 40 Q-sorts. This next step is the analysis, in which collective perspectives on the subject were identified from these Q-sorts. Such a collective perspective is a group of participants who have sorted the aspects in a similar matter in their Q-sort and therefore have similar views on the topic. This analysis resulted in the identification of four perspectives, representing four different collective views on good participation shared by several stakeholders.

Perspective one, *a trusted process leading to influence by the right people*, considers participation to be good if trust is created and the input provided actually influences the initiative. The distinctive aspect of this perspective is the call for a flexible and adaptable process. The second perspective, *a clearly defined process resulting in greater support*, has a positive opinion about participation as long as the organized process is very clear, professional, and properly followed, and results in greater support for the initiative. This perspective underlines the importance of having an effective conflict handling strategy. The third perspective, *achieving satisfaction with a tailor-made process*, believes that participation is good if the process is situation-specific, followed well and there is satisfaction with how it went down, regardless of whether it resulted in adjustments to the design of the initiative. This perspective values when organizers have knowledge of the local situation and can adapt to it. Lastly, perspective four, *as long as everyone is heard*, feels that participation is good when the design of the initiative is changed according to the input provided by participants who were involved from the start and whose expertise is valued. The unique aspect of this last perspective is the importance placed on leveraging participant expertise. After the identification of these perspectives, it was investigated whether a relationship could be observed between a stakeholder's characteristic and their perspective. The first characteristic was the group to which the stakeholder belongs, where it was observed that civil servants relatively adhere

to perspective three more than the other groups. The second characteristic was the number of years of work experience they have, which showed that those with over twenty years of experience relatively hold perspective two more than the others. For the third characteristic, the phase in the development process in which the stakeholder is involved, no relation was observed. When looking at the fourth and final characteristic, the number of participation processes that a stakeholder has been involved in, it was seen that those who had experience with less than ten relatively adhered more to perspective two than the others.

This research showed that there are multiple views on what constitutes good participation and thus different aspects that are considered the most important for good public participation processes. However, in addition to the aspects previously described that set them apart, the perspectives also have some similarities. There are two aspects on which they agree that they are important for a good participation process: *providing feedback to participants* and *involving the public before adopting final plans*. On the other hand, the perspectives collectively express that *having many participants*, *a time-efficient process*, *the use of multiple methods*, and *cost-effectiveness* are the least important for good participation. The relations between stakeholders' characteristics and their perspectives that were observed in the sample couldn't be generalized. However, the relationship between the group and the perspectives showed a strong indication that a link between those is also present in the population. That means that civil servants are likely to adhere to the third perspective and thus value a tailor-made process where the organizer has knowledge of the local situation.

This research has provided new scientific insights by showing that there are different views on what constitutes 'good' public participation. It is recommended that project initiators incorporate important aspects of all four perspectives when designing a participation process for an initiative, to ensure that it is as 'good' as possible. To aid initiators in doing so, a one-pager has been drafted which contains an overview of the important aspects of each of the perspectives. With this, the practical aim of the research - which was to provide support to project initiators for the setup of participation processes - was achieved. Even though these initiators were the focus of this research, municipalities are recommended to incorporate the findings of this study in their guidelines to give all initiators more tools to rely on. A recommendation is made for studies applying Q-methodology in general to formulate the starting sentence, used by respondents for sorting the items on their grid, from a personal perspective to remove possible ambiguity. Furthermore, it's recommended that such studies pay attention to using uniform types of items for the Q-set, to facilitate drawing conclusions. Next to this, several recommendations are made for future research to reach further insight into the characteristics of good participation. First, it could be further investigated whether views differ between obligatory and non-obligatory participation. Additionally, it is recommended to do the same for different regions. Finally, it is recommended to further investigate possible relationships in the population between stakeholders' characteristics and their views on the subject.

Keywords: Environment and Planning Act, environmental permit, public participation, real estate construction, Q-methodology

Samenvatting

Op 1 januari 2024 is de Omgevingswet ingegaan in Nederland. Deze wetgeving heeft als doel het versimpelen van bestaande wetgeving op het gebied van milieuwetgeving voor ruimtelijke projecten door deze te combineren in één wet. Een belangrijke pijler van de Omgevingswet, specifiek van de omgevingsvergunning, is publieke participatie. De waarborging hiervan in de wet is echter beperkt aangezien de organisatie ervan niet is vastgelegd. Over het algemeen blijven de methoden om het publiek bij milieubesluitvorming te betrekken omstreden, wat heeft geleid tot verschillende onderzoeken naar de principes die goede publieke participatieprocessen definiëren. Het merendeel van de literatuur gaat er vanuit dat alle partijen die bij zo'n proces betrokken zijn dezelfde principes hanteren, terwijl het zo kan zijn dat belanghebbenden verschillende opvattingen hebben over wat een goed proces is. In de Omgevingswet is er bewust voor gekozen om het gemeenten te verbieden om eisen te stellen aan initiatiefnemers over hoe zij de participatie moeten uitvoeren, met als reden om lokaal maatwerk mogelijk te maken. Deze onduidelijkheid over de beste manier om publieke participatie uit te voeren kan het echter lastiger maken voor een initiatiefnemer om participatie voor zijn of haar project op te zetten. Het doel van dit onderzoek was om inzicht te krijgen in wat een goed publiek participatieproces is door te bepalen of en hoe stakeholders dit verschillend karakteriseren, specifiek voor het bouwen van vastgoed in woonwijken. De onderzoeksvraag luidde daarom als volgt: *Welke perspectieven bestaan er op wat een goed participatieproces is voor vastgoedbouwprojecten in woonwijken en wat zijn de kenmerken van de belanghebbenden binnen deze perspectieven?*

De Q-methode is gebruikt om de meningen van 42 belanghebbenden over succesvolle participatie te verzamelen. De eerste stap in het gebruik van deze methode was het bepalen van de Q-set: de volledige lijst van aspecten die relevant zijn voor goede participatie. Dit is opgesteld aan de hand van een literatuurstudie, die resulteerde in de identificatie van 490 aspecten die gebruikt kunnen worden om het succes van een participatieproces te bepalen. Door deze op iteratieve wijze te sorteren in categorieën, gelijksoortige te combineren en te overleggen met participatieadviseurs, werd dit aantal teruggebracht tot 41 aspecten. De belanghebbenden werd vervolgens gevraagd om deze aspecten te rangschikken op een vast raster, variërend van 'meest belangrijk voor goede participatie' tot 'minst belangrijk voor goede participatie'. Het ingevulde raster van elke belanghebbende wordt een Q-sort genoemd en laat zien hoe belangrijk diegene elk aspect vindt ten opzichte van de andere aspecten. Er werd een voorwaarde gesteld aan de deelnemers van dit onderzoek, namelijk dat ze eerder betrokken moesten zijn geweest bij ten minste één participatieproces. Omdat twee van de deelnemers niet aan deze voorwaarde voldeden, bestond de input voor de volgende stap van de Q-methode uit 40 Q-sorts. Deze volgende stap is de analyse, waarbij uit deze verzameling aan Q-sorts collectieve perspectieven op het onderwerp zijn geïdentificeerd. Zo'n collectief perspectief is een groep deelnemers die de aspecten op een vergelijkbare manier heeft gesorteerd in hun Q-sort en daarom een vergelijkbare kijk hebben op het onderwerp. Deze analyse resulteerde in de identificatie van vier perspectieven die vier verschillende opvattingen over goede participatie vertegenwoordigen en die door verschillende deelnemers worden gedeeld.

Perspectief één, *een vertrouwd proces dat leidt tot invloed door de juiste mensen*, vindt participatie goed als er vertrouwen wordt gecreëerd en de geleverde input daadwerkelijk invloed heeft op het initiatief. Het kenmerkende aspect van dit perspectief is de vraag naar een flexibel en aanpasbaar proces. Het tweede perspectief, *een duidelijk gedefinieerd proces dat leidt tot meer draagvlak*, is positief over participatie zolang het georganiseerde proces zeer duidelijk en professioneel is en goed wordt gevolgd, en het daarnaast resulteert in een groter draagvlak voor het initiatief. Dit perspectief onderstreept het belang van een effectieve strategie om met conflicten om te gaan. Het derde perspectief, *tevredenheid met een op maat gemaakt proces*, gelooft dat participatie goed is als het proces situatie-specifiek is, goed gevolgd wordt en er uiteindelijk tevredenheid is over hoe het verlopen is, ongeacht of het geleid heeft tot aanpassingen aan het ontwerp van het initiatief. Dit perspectief waardeert het als organisatoren kennis hebben van de lokale situatie en zich daaraan kunnen aanpassen. Als laatste vindt

perspectief vier, *zolang iedereen gehoord wordt*, dat participatie goed is als het ontwerp van het initiatief wordt aangepast op basis van de inbreng van de deelnemers, die vanaf het begin moeten worden betrokken en wiens expertise wordt gewaardeerd. Het unieke aspect van dit laatste perspectief is het belang dat wordt geplaatst op het benutten van de expertise van deelnemers. Na de identificatie van deze perspectieven werd onderzocht of er een verband kon worden waargenomen tussen een karakteristiek van een belanghebbende en diens perspectief. Het eerste kenmerk was de groep waartoe de belanghebbende behoort, waarbij werd waargenomen dat ambtenaren relatief vaker perspectief drie aanhangen dan de andere groepen. Het tweede kenmerk was het aantal jaren werkervaring dat iemand heeft, waaruit bleek dat degenen met meer dan twintig jaar ervaring relatief meer perspectief twee aanhangen dan de anderen. Voor het derde kenmerk, de fase in het ontwikkelproces tot waarin de belanghebbende betrokken is, werd geen relatie geobserveerd. Bij het vierde en laatste kenmerk, het aantal participatieprocessen waar een belanghebbende bij betrokken is geweest, werd gezien dat degenen met minder dan tien processen ervaring relatief vaker perspectief twee aanhangen dan de anderen.

Uit dit onderzoek bleek dat er meerdere visies zijn op wat goede participatie is en dus ook verschillende aspecten die als meest belangrijk worden beschouwd voor goede publieke participatieprocessen. Naast de eerder beschreven aspecten die de perspectieven van elkaar onderscheiden, hebben ze echter ook een aantal overeenkomsten. Er zijn twee aspecten waarover ze het eens zijn dat ze belangrijk zijn voor een goed participatieproces: *het geven van feedback aan deelnemers* en *het betrekken van het publiek voordat definitieve plannen zijn aangenomen*. Aan de andere kant zijn de perspectieven in overeenstemming over het feit dat *het hebben van veel deelnemers*, *een tijdsefficiënt proces*, *het gebruik van meerdere methoden*, en *kosteneffectiviteit* het minst belangrijk zijn voor goede participatie. De relaties tussen de karakteristieken van belanghebbenden en hun perspectieven die werden waargenomen in de steekproef konden niet worden gegeneraliseerd. De relatie tussen de groep en de perspectieven toonde echter een sterke aanwijzing dat daartussen ook een verband aanwezig is in de populatie. Dat betekent dat ambtenaren naar verwachting het derde perspectief aanhangen en dus waarde hechten aan een op maat gemaakt proces waarbij de organisator kennis heeft van de lokale situatie.

Dit onderzoek heeft nieuwe wetenschappelijke inzichten opgeleverd door aan te tonen dat er verschillende opvattingen bestaan over wat 'goede' publieke participatie is. Initiatiefnemers wordt aangeraden om belangrijke aspecten van alle vier de perspectieven mee te nemen bij het ontwerpen van een participatieproces voor een project, om ervoor te zorgen dat dit proces zo 'goed' mogelijk is. Om initiatiefnemers daarbij te helpen is een one-pager opgesteld die een overzicht bevat van de belangrijke aspecten van elk van de perspectieven. Hiermee is het praktische doel van dit onderzoek - het ondersteunen van initiatiefnemers bij het opzetten van participatietrajecten - bereikt. Hoewel deze initiatiefnemers de focus waren van dit onderzoek, wordt gemeenten aanbevolen om de bevindingen van dit onderzoek op te nemen in hun richtlijnen, om zo alle initiatiefnemers meer handvaten te geven om te gebruiken. Er wordt een aanbeveling gedaan voor studies die de Q-methode toepassen in het algemeen om de startzin, die deelnemers gebruiken de items op hun raster te sorteren, vanuit een persoonlijk perspectief te formuleren om mogelijke dubbelzinnigheid weg te nemen. Verder wordt aanbevolen dat dergelijke studies aandacht besteden aan het gebruik van uniforme typen items voor de Q-set, om het trekken van conclusies te vergemakkelijken. Daarnaast worden verschillende aanbevelingen gedaan voor toekomstig onderzoek om meer inzicht te krijgen in de kenmerken van goede participatie. Ten eerste zou verder onderzocht kunnen worden of opvattingen verschillen tussen verplichte en niet-verplichte participatie. Daarnaast wordt aanbevolen om hetzelfde te doen voor verschillende regio's. Tot slot wordt aanbevolen om verder onderzoek te doen naar mogelijke relaties in de populatie tussen karakteristieken van belanghebbenden en hun opvattingen over het onderwerp.

Trefwoorden: Omgevingswet, omgevingsvergunning, publieke participatie, vastgoedbouw, Q-methode

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Abbreviations

AMvB	’Algemene maatregel van bestuur’
Bal	’Besluit activiteiten leefomgeving’
Bbl	’Besluit bouwwerken leefomgeving’
Bkl	’Besluit kwaliteit leefomgeving’
BOPA	’Buitenplanse omgevingsplanactiviteit’
CoI	Condition of Instructions
EPA	Environment and Planning Act

Translations

Algemene maatregel van bestuur	Order in council
Besluit activiteiten leefomgeving	Environmental Activities Decree
Besluit bouwwerken leefomgeving	Environment Buildings Decree
Besluit kwaliteit leefomgeving	Environmental Quality Decree
Bevoegd gezag	Competent authority
Bouwactiviteit	Construction activity
Buitenplanse omgevingsplanactiviteit	Environmental planning activity that is out of plan
College van B&W	Municipal Executive
Gemeenteraad	Municipal Council
Ministeriële regeling	Ministerial decree
Omgevingsbesluit	Environmental Decree
Omgevingsplanactiviteit	Environmental planning activity
Omgevingsplan	Physical environment plan
Omgevingsregeling	Environmental Regulation
Omgevingsverordening	Environmental regulation
Waterschapsverordening	Water board regulation

1 Introduction

1.1 Introduction to the topic

The first law of the Netherlands that was aimed at the environment came into force in 1810, which was the Mining Act. Over two hundred years later, there were approximately 40 laws, 120 orders in council (Dutch: algemene maatregelen van bestuur, AMvBs), and several hundred ministerial decrees (Dutch: ministeriële regelingen) concerning the environment. This fragmentation of the environmental law was the result of regulations being adjusted to new societal developments. Each law addresses a specific interest and has its own terminology and system. This led to inconsistencies, which sometimes meant that laws were contradicting each other. Consequentially, this approach to environmental legislation slowed down or even completely obstructed new developments. In other words, because the legislation was built on partial interests it hardly promoted a coherent approach. Additionally, the legislation inadequately considered regional differences. For example, large cities face different challenges compared to shrinking regions or smaller villages (Interdepartementale Programmadirectie Eenvoudig Beter, 2016).

This could be made simpler and more effective so that new, sustainable developments in society are enabled and legally supported. To accomplish this, an integrated approach is crucial, meaning that various interests are considered in mutual coherence. The government at the time of 2011 initiated the first steps towards a restructuring of the environmental legislation, with the development of the Environment and Planning Act (EPA) at its core (IPLO, n.d.-c). Its purpose is to simplify existing environmental legislation for spatial projects by combining them into one (Ministry of the Interior and Kingdom Relations, n.d.). In doing so, starting up projects will be made easier because, among other things, the burden of conducting studies is reduced, and the decision time on those projects is sped up (IPLO, n.d.-b). Digital support is considered crucial for the successful implementation of EPA. To enable the sought-after integrated decision-making, it's essential to have access to accurate and consistent data. The ambition is for citizens, project initiators, and authorities alike to access information about the physical environment and relevant regulations digitally through a single platform for every region. This way, initiators can for example quickly obtain clarity for all their planned activities through a single application on one platform. EU regulations apply to various aspects of the physical environment in the Netherlands and national laws are developed accordingly. To ensure simplicity and standardize the implementation and procedures of environmental legislation as much as possible, the structure of EPA is based on that of EU regulations. In the Spring of 2016, EPA was passed in the Senate (Dutch: Tweede Kamer) (Interdepartementale Programmadirectie Eenvoudig Beter, 2016). On January 1st 2024, this legislation took effect in the Netherlands.

1.2 Problem definition

An important element of EPA is involving citizens and businesses in decision-making regarding projects. However, even though participation is presented as an important pillar, its safeguarding in the law is limited since it's not regulated how it should be organized (Helder, 2022). Garnering support for a project is seen as an important and beneficial side-effect of this participation (Interdepartementale Programmadirectie Eenvoudig Beter, 2016). Nevertheless, even though it has been widely acknowledged for

a while now that involving the public in environmental decision-making is crucial (for creating support, among other reasons), the methods for doing so remain contentious in general. This has previously prompted the quest for principles that define good public participation processes. The majority of the literature assumes that all parties involved in a process share the same principles, such as a good process being fair and competent. However, these might not be the only aspects of a participatory process that people consider important. Stakeholders may hold differing views on what constitutes a good process, which means that there may be no single definition of a good process, either in theory or in specific cases. Conflicts regarding the best practices for public participation may present challenges for those responsible for designing participatory decision-making processes (Webler, Tuler, & Krueger, 2001). The responsibility for participation is placed at the local level, but municipalities are explicitly prohibited from imposing requirements on initiators on how they implement it. Soeterbroek (2024) states that it's a fundamental flaw in EPA that municipalities cannot set a standard for the democratic quality of decision-making. However, this was a conscious choice by the legislator, the reason for this being the freedom to carry out local customization (Helder, 2022). As indicated by Webler et al. (2001), this uncertainty on what constitutes a 'good' process can make it difficult for an initiator to set up participation for their project.

To narrow the scope of this research problem, only the real estate sector will be considered within urban development. This delimitation is dictated by the focus of the graduation company Drees & Sommer Netherlands. An additional demarcation is to only observe this real estate construction in residential areas. The reason for this is that these are areas with many neighboring parties and activities that could all have an opinion on the project, meaning that organizing participation has the most added value for such projects compared to projects in industrial areas for example, where there are fewer neighboring parties with thoughts on the project.

1.3 Research objective and relevance

The objective of this research is to gain insight into what constitutes a good public participation process for real estate construction projects in residential areas. The goal is to find out if there are other aspects than fairness and competence that play a role in determining public participation success for stakeholders and learn if and how stakeholders characterize a good participation process differently. It thus seeks to supplement the law by attempting to define what constitutes a good public participation process. This result can then form a guideline for initiators for the setup of participation by pointing out which aspects to consider when dealing with different parties in designing that process for a project under the EPA regulations.

In addition to this practical relevance, the scientific relevance of this research can also be indicated. It was previously mentioned that earlier studies have been executed that focused on finding principles that define good public participation processes. However, the general assumption in these studies was that all parties involved in a process consider the same principles important. It has not yet been studied whether that is in fact the case, or if perhaps different views on this exist. That is what this research will contribute to the existing body of literature. To expand on these possible views and provide more explanation, this study also explores whether any relationships can be indicated between certain characteristics of a person and their point of view.

1.4 Research questions

A main research question is formulated to achieve the objective of this research, for which an answer will be provided throughout the research. In formulating this question, the problem statement and scope limitations were taken into account, leading to the following main research question:

> *What perspectives exist on what constitutes a good public participation process for real estate construction projects in residential areas and what characterizes the stakeholders within these perspectives?*

Several sub-questions have been established to structure the research and help answer the main research question. The methodology used to answer these questions is discussed in the following

paragraph. The sub-questions are as follows:

1. *What does participation in urban development projects entail?*
2. *What are aspects of successful participation in a construction project?*
3. *To what extent do the perspectives correlate with the stakeholders' characteristics?*

1.5 Research design

To answer the research questions and thereby reach the objective of this research, a research design is set up. This design is linked to the sub-questions as introduced in the previous paragraph. Firstly, to understand the working of participation in urban development projects, the characteristics of the concept of participation are researched, answering sub-question 1. This outlines the theoretical context for participation in projects in the construction sector, in which the study is conducted. The next question serves to provide input for the survey administered for this study. This step consists of the extraction of possible aspects related to successful participation from the literature, focusing on those relating to construction projects. Since not all criteria from the literature are equally important, a selection is made using occurrence in literature and two interviews with participation advisors. This selection forms the answer to sub-question 2.

After the theoretical framework has been completed by answering the first two sub-questions, the focus can shift to the empirical part of this research. A survey is filled out by stakeholders in which they sort the aspects that were distinguished in the previous sub-question. Q-methodology is then used to discover both the common and different subjective views of respondents on a specified topic (S. R. Brown, Durning, & Selden, 1999). In this research, the viewpoint of the stakeholders on what constitutes 'good participation' is studied. Through Q-methodology, these stakeholders indicate which aspects are most important and which are least important for a good participation process. Using factor analysis, the possible existence of collective perspectives on good participation is explored. The results from this analysis are discussed and conclusions from these perspectives are drawn. Lastly, after these perspectives are identified, it is explored whether any relationships are present between certain characteristics of the respondents and their perspectives. This could help project initiators further in setting up a public participation process: if there is indeed a relationship and they know what type of person they are dealing with in a project, then they can take into consideration what perspective that person is likely to have and thereby which aspects he or she values in a participation process. These relationships are investigated through the use of the Chi-Square test, and this provides the answer to sub-question 3.

1.6 Report overview

The report starts by exploring the theoretical background of the topic at hand in chapter 2 by studying the literature on participation, as well as its embedding in the new legislation. In chapter 3 the methodology used for this research is discussed (Q-methodology), containing both background information and a description of all the steps in this analysis. Chapter 4 presents the design of this methodology for the research at hand. The results of this research are analyzed and interpreted in chapter 5, providing the perspectives on the subject. Next, chapter 6 contains an analysis of possible correlations between these perspectives and the characteristics of the stakeholders adhering to them. This is followed by a discussion of the research in chapter 8, which includes a description of limitations and recommendations. Finally, the report provides a conclusion in chapter 7, containing the answers to the research questions.

2

Theoretical background of participation

2.1 A short history of participation before the 21st century

Over the past 50 years, participation has taken on a more permanent place in city and community developments. As early as the 19th century, there were social initiatives to eliminate threatening individual and social inequalities through participation. After World War II, participation became the main way to rebuild the community (Deceur, 2018). However, the big rise of the notion of community participation was mainly in the 1960s and 1970s, both internationally and in the Netherlands. The American Jane Jacobs was one of the first to describe the importance of giving residents a voice in urban planning and redevelopment after she saw the value of local knowledge in neighborhoods not being utilized. Someone who is also considered a great inspiration for participation is Sherry Arnstein, another American. She published in 1969 what remains to this day among the most cited work on participation ever, *A Ladder of Citizen Participation*, which addresses the various forms and levels of citizen participation. In that same year in the Netherlands, Amsterdam City Council member Ed van Thijn submitted a request to the City Council that public participation be a regular part of urban planning. Even though his proposal was not adopted, the Council did say they wanted to experiment with participation more often (Verheul, Heurkens, & Hobma, 2021). In the 1980s and 1990s, ideas emerged about more market forces and public entrepreneurship in urban development. The assumption was that the stiff competition would lead to private parties providing citizens with more choices and lower prices. However, these expectations were too optimistic: private parties are not automatically focused on seeking out and facilitating the wishes of citizens and other parties in the surrounding area, especially not when there is limited competition (Verheul et al., 2021).

2.1.1 Gradations of participation

Arnstein's previously mentioned *Ladder of Citizen Participation*, depicted in figure 2.1, is a typology of eight levels of participation (Arnstein, 1969). She divided these levels into three categories from the bottom upwards: non-participation, degrees of tokenism, and degrees of citizen power. The former consists of two levels that don't aim to enable the public to participate in planning but support the idea that citizens should be 'cured' of their conflicting opinions (Dreijerink, Kruize, & van Kamp, 2008). This category can also be called 'pseudo participation' (Moynihan, 2003) and, as both this and the original name suggest, its levels are not considered to be true forms of participation. Despite this, they are included in the ladder because they were - and still are sometimes - used by initiators: their plans for urban developments had long been fixed, which meant any participatory activities were simply (occupational) therapy (Verheul et al., 2021). The three levels from the second category allow the public to be consulted but only with limited impact since it's not ensured that their input is considered. It can therefore be described as partial participation (Moynihan, 2003). The final category is formed by three levels that contribute actual decision-making power to the public and can therefore be referred to as full participation (Moynihan, 2003).

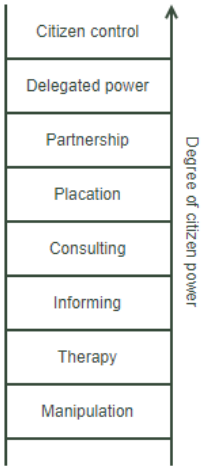

Figure 2.1: Arnstein's Ladder of Citizen Participation

Figure 2.2: The ladder focused on the Dutch context

This ladder design has been regularly criticized over the years. The criticism is mainly directed at its hierarchical nature: such a design seems to imply that participation processes on the upper levels are preferred and are deemed more democratic than processes on the lower levels. Attempts have been made to circumvent the hierarchical nature of a ladder but so far it appears to capture the imagination the most so this is proving difficult (Dreijerink et al., 2008). This explains why, meanwhile, dozens of variations of the participation ladder have been created. Some authors added or removed a level, others used new terms, and alternate graphic representations have been made (Verheul et al., 2021). As mentioned by Dreijerink et al. (2008), the International Association for Public Participation uses a division of five levels, which is quite similar to a ladder created with a focus on the Dutch context by J. Edelenbos, G.R. Teisman, and M. Reuding (2001), depicted in figure 2.2. Its authors believe that from the third level onward, it is an interactive process. In other variations of this five-tier ladder, 'informing' is not included as a level because it isn't seen as a form of participation, or sometimes a sixth level called 'self-management' is added on top (Dreijerink et al., 2008).

2.1.2 Motives of participation

Visser et al. (2019) mention four categories of motives for starting participation, which are relevant to the goal with which participation is undertaken. These categories are composed of two axes, one ranging from government to participant and the other from democratic to instrumental. Their summary of these motives is translated and portrayed in figure 2.3. The most frequently mentioned instrumental motive for a government is that participation leads to decisions of better quality. The reason for this is that it brings attention to a variety of problems and solutions and it's a direct link to the local situation and dynamics. The most important element of a government's democratic motives is the legitimacy of the government as an institution and of its decisions, which is more and more under pressure in today's society. The participant's democratic motives particularly receive attention in the international context, in which participation is approached as a fundamental civil right and both civilians and entrepreneurs have a right to say on decisions and public services. Lastly, the most impor-

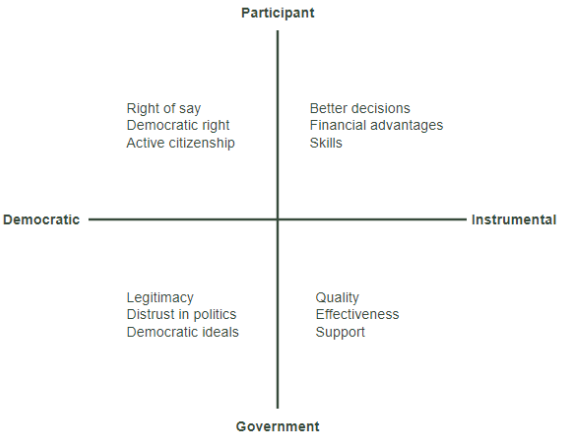

Figure 2.3: Motives for participation (Visser et al., 2019)

tant instrumental motive for the participant is similar to that of a government: it leads to better decisions because the individual interest of the participant is better taken into account, a plan is implemented in a better way, or greater compensation is agreed upon. Even though the starting point of participation can be one of these different categories, the authors say all perspectives are considered in participation processes and therefore it is not a matter of 'choice'. This means that there are no participation processes that serve only for instance the instrumental goals of the government or only the democratic goals of the participants.

2.1.3 Process management and participation

Public participation organized for urban development projects is, preferably, not a one-off occasion. Instead, it is a process, with multiple gatherings in the same or different compositions. As such, the topic of process management is relevant and some of the principles from this could apply. Therefore, some of these are briefly touched upon in this paragraph. The term 'network' is used interchangeably here, since the context of participation takes place in a network instead of a hierarchical context: the input from each of the participating parties is valued the same. De Bruijn and Ten Heuvelhof (2008b) have set out some key points for process management, starting with not only the importance of performing an actor analysis but of this being an ongoing learning process. The interests, resources, and opinions of actors can constantly evolve throughout the process, which means that a one-time analysis at the start will become outdated. They also bring forward the question of which parties to involve and provide arguments as to why involving all of them is rarely an option. Instead, they emphasize the importance of selecting participants in such a way that at least all interests are represented in the process. Bednar and Henstra (2018) state that trust is a central component of networks. Not only that, but equality of participants is seen as an ideal. It is recommended to use broad problem definitions instead of formulating them as precisely as possible and couple them to other problems where possible (De Bruijn & Ten Heuvelhof, 2008a). This approach is more likely to get the stakeholders to participate in the process and thus produce a result. They also give the same advice for the formulation of the goals: compose these so broadly that a critical mass of stakeholders can sufficiently recognize them. Lastly, they warn of possible problems arising from laying down boundaries that are too strict.

2.2 Privately organized participation and the Environment and Planning Act

In the past twenty years, various new initiatives of participation have been introduced in the Netherlands and it has been mentioned several times in politics as well. The development regarding market forces in the 1980s, touched upon in section 2.1, led to the realization that parties other than the government started pulling the (spatial) strings. This made public participation organized through the government an outdated principle. A logical consequence of this increasing private influence within urban development is a bigger role for new (market) parties in the organization of participation, and therewith a shift to more privately organized participation (Verheul et al., 2021). This role for private parties is defined in the Environment and Planning Act, more specifically the part of the environmental permit (IPLO, n.d.-e). Such specification in legislation was necessary because there was a period of much discussion surrounding resident participation in private development projects. Questions were for example who was responsible for the participation in such projects, when it was found that sufficient participation had taken place, and if there were frameworks for setting up such participation (Muis (D66), Machielse (VVD), & Markus (Christenunie), 2021).

2.2.1 Legislative text of the Environment and Planning Act

As described in section 2.1, 'participation' has become an increasingly important topic. This can be done at the planning level, but also at the lower scale of specific building projects, known as the project level, in which case it concerns participation within the context of applying for a permit (Hobma & Jong, 2022). If this is the case, it's often not the (decentralized) government that organizes the participation, but for example the project developer or a social organization. This is then referred to as privately organized participation (Verheul et al., 2021). The regulations surrounding such an environmental permit are stipulated in the EPA, a part of which are these privately organized participation processes. To fully understand how this regulation is structured, the environmental permit legislation is explained first and

then the focus is shifted to participation.

As mentioned previously, the environmental permit is part of the EPA and this is the part that applies to initiators of construction projects when it comes to participation. Article 5.1 of the EPA (2024) specifies activities for which a permit is required (IPLO, n.d.-d). Each of these activities has its own assessment rules based on which a permit is granted. A construction project may involve several activities from this list, in which case the initiator must include the criteria of those different activities in the application for the environmental permit. For example, for real estate construction, which is the focus of this research, not only an environmental permit for an environmental planning activity is required, but also almost always an environmental permit for a construction activity. In the end, one permit can be issued, which then contains permission for all activities for which the permit was applied (Hobma & Jong, 2022).

A permit for an environmental planning activity checks the design against spatial requirements. Environmental planning activities are specified in each municipality's physical environment plan and are therefore established at the regional level. The application requirements and assessment rules for these activities are thus also defined at that level, specifically in the municipality's physical environment plan (IPLO, n.d.-d). Since each municipality can decide for itself which environmental planning activities necessitate a permit, there are differences between municipalities when it comes to the activities for which a permit is required (Hobma & Jong, 2022). Consequentially, it may be that a permit for an environmental planning activity is not required for an activity in one municipality, while for the same activity in another municipality, it is.

A permit for a construction activity, which is specified as an activity involving the construction of a structure, checks the design against technical requirements. The application requirements, what information a project initiator must submit with its application, and the assessment rules to be followed by the competent authority (Dutch: bevoegd gezag) when reviewing an application are laid out in chapters seven and nine of the Environmental Regulation (Dutch: Omgevingsregeling) (IPLO, n.d.-d). This Environmental Regulation (2023) builds upon the EPA and the four orders in council: the Environmental Decree (Dutch: Omgevingsbesluit), Environmental Quality Decree (Dutch: Besluit kwaliteit leefomgeving, Bkl), Environmental Activities Decree (Dutch: Besluit activiteiten leefomgeving, Bal), and the Environment Buildings Decree (Dutch: Besluit bouwwerken leefomgeving, Bbl). The technical specifications that structures must comply with are outlined in the Bbl. This is one of the four orders in council of the EPA, meaning that it is directly based on this legislation (Hobma & Jong, 2022). Thus, this activity is regulated at the national level, unlike the environmental planning activity.

Some people might question what the advantage is of separating the spatial and technical assessment as such. As mentioned previously, one permit can be issued which grants permission for both activities for which it was applied. However, the initiator is not obligated to combine the applications for the two activities. This means that they could also first apply only for a permit for an environmental planning activity to check if it will be approved from a spatial standpoint. Subsequently, after the permit is granted, they can have the plans further developed and apply for the construction activity permit. With this approach, investment costs for an architectural design can be postponed until it is known that a plan may be implemented from a spatial perspective, thereby limiting the risk of losing such an investment (Hobma & Jong, 2022).

Participation

One of the application requirements for permits that are decided on a national level, specified in article 7.4 of the Environmental Regulation (2023), is to indicate whether participation has been organized and if so, describe how this was done and what the results were. This requirement does not include an obligation to set up participation, only that documentation is required (IPLO, n.d.-f). However, Article 16.55(7) of the EPA (2024) stipulates the following exception: the Municipal Council may designate types of projects where participation is mandatory, for example, 'buildings with a size of more than 200m^2'. They can only do this for environmental planning activities that are out of plan (Dutch: buitenplanse omgevingsplanactiviteit, BOPA), and for which the Municipal Executive is the competent authority. A BOPA is an activity that doesn't comply with the rules of the physical environment plan and is not part of the 'permit-free environmental planning activities that consist of building' (IPLO, n.d.-a).

The latter is a list of activities that are exempted from the permit requirement by the State, laid down in the Bbl (IPLO, n.d.-g).

Even though the EPA presents participation as an important element, one can already see that the actual safeguarding of it in the law is limited. Not only is it not an obligation, but the legislator has made a conscious decision not to prescribe the method of participation in detail, and therefore the law also does not regulate how participation should be structured if it is organized (Helder, 2022). It simply states the following about participation: *early involvement of stakeholders [...] in the decision-making process of a project or activity* (IPLO, n.d.-e). Municipalities can provide a participation guide but, as the name implies, this serves more as a guideline to initiators and is not a checklist against which they can lay out their process to determine whether they've done it 'right' or not.

3

Theoretical background of methodology

3.1 A short history of Q-methodology

R-type studies were the traditional methods for analyzing data for a long time, which involve analyzing correlations between tests (traits) using the quantitative technique called factor analysis (Oxford Reference, n.d.-a, n.d.-b). Q-study is a variation on this, stemming from 1935, where it's not the tests that are the variables of interest but rather the different individuals (Watts & Stenner, 2005). The interpretation of these gives the method a qualitative angle as well, making it a mixed method. In other words, the difference between these two types of methods is what's correlated and factor analyzed: traits or persons. As such, Q-methodology is a scientific approach to studying human subjectivity. Within this method, subjectivity refers to an individual's expression of their point of view (also called 'perspective') (McKeown & Thomas, 1988).

As does every research method, Q-methodology has its advantages and limitations. A benefit mentioned by Van Exel and De Graaf (2005) is that not a large number of respondents is required, but only a small amount of, how S. R. Brown et al. (1999) called it, 'well-selected ones'. Other advantages, mentioned by Peritore (1989), are that the method respects the integrity of the respondents' opinions and that the results are anonymous. This can help to push respondents to give their honest opinions about the statements presented to them. On the other hand, Cross (2005) mentions that there is a risk that the respondent will give what they think are the 'socially acceptable' instead of their honest opinion about the subject. Another often mentioned drawback of this method is its reliability, specifically referring to the ability to reproduce the results, and therewith the possibility for generalization (Van Exel & De Graaf, 2005). However, Peritore (1989) states that experiments into retesting have shown 85% consistency in replications of sorts up to a year later. It has also been said that even though Q-methodology does not necessarily produce the same results when repeated with the same people, social psychology does not perceive this as an issue, as there is no anticipation for a person to articulate identical views on two distinct occasions anyways (Cross, 2005). An additional disadvantage is that with selecting the statements and interpreting the results there is a risk of researcher bias (Cross, 2005). However, there are ways to reduce this risk, which are addressed in sections 3.2.1 and 3.2.3 respectively.

While many believe that the complexity of the Q-sorting procedure necessitates face-to-face interviews due to unfamiliarity among the general public, Van Exel and De Graaf (2005) refer to research from 1979 that argues that Q-studies can be effectively conducted via mail. That research discovered that self-administered Q-sorting yielded results highly consistent with those obtained from in-person interviews. More recent research conducted two validation studies that compared computer- and interview-based Q-sorting, concluding that there is no discernible difference in the validity or reliability between these two methods (Reber, Kaufman, & Cropp, 2000). Such computer-based Q-sorting may be preferable when the respondents are geographically distributed to lower the amount of time necessary to perform the research. However, interviews typically do afford the researcher a deeper understanding of the results because of the ability to ask follow-up questions, often resulting in a more insightful interpretation (Van Exel & De Graaf, 2005).

3.2 Steps of Q-methodology

Performing Q-methodology research consists of several steps. For this research, a combination is made from the stages identified by Van Exel and De Graaf (2005) and Damio (2016). The reason for this is twofold. Firstly, the former combines analysis and interpretation of the results in one step, whereas for this research it is believed to be important to make a distinction between these activities and therefore it follows the latter on this point. Secondly, the latter article included a 'post Q interview' as a separate step to identify the respondents' placement reasoning, whereas in this research this is included in the Q-sorting and therefore there is no need for it to be a separate step, which is how the former article dealt with it. This combination results in the six steps that will be followed in this research as depicted in figure 3.1. In this research, these steps are divided into three phases for ease of description and understanding, which are also indicated in the figure: preparation, execution, and evaluation. These phases and the steps that compose them are explained in the following sections. Exactly how these steps were applied within this particular research is described in chapters 4 and 5, respectively, with the former containing the preparation and execution phases and the latter the analysis phase.

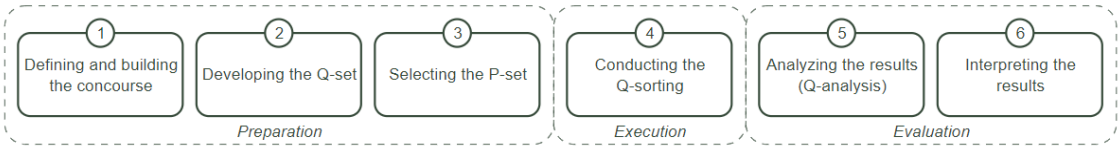

Figure 3.1: Steps of Q-methodology and division in phases

3.2.1 Preparation

Defining and building the concourse

The concourse represents all the existing opinions, discussions, and arguments about the topic of the study (Nieuwenhuis, Cuppen, & Langeveld, 2022; Van Exel & De Graaf, 2005). Concourses are not necessarily made up of words, but they can also include paintings, photographs, and even bits of music(S. R. Brown, 1993). A concourse can be obtained in various ways: from interviewing people and recording their responses to using commentaries from news outlets or going through essays (S. R. Brown, 1993). The resulting concourses can be categorized into two types: naturalistic and ready-made. The former are those derived from respondents' communications, while the latter are the ones acquired from sources such as existing print media (Damio, 2016). The statements should cover as many aspects of the topic as possible, to enable the respondents to truly express their views (Coogan & Herrington, 2011).

Developing the Q-set

Once the concourse has been defined it will be organized and analyzed to draw a subset of statements from it, the Q-set, which is what will be presented to the respondents (S. R. Brown, 1993). The process of creating the Q-set from the concourse consists of cycles, which helps to determine the representativeness and completeness of the statements (Damio, 2016). McKeown and Thomas (1988) make a distinction between structured and unstructured sampling when it comes to the design of the Q-set. When applying unstructured sampling, items believed to be pertinent to the subject are selected without extensive efforts to cover all potential sub-issues. Therefore, they bring the risk of under- or oversampling certain components, potentially leading to unintentional bias being introduced into the Q-set. The structured approach, on the other hand, is a more systematic manner of assembling the subset. Typically, concourse items are allocated to (experimental) conditions specified and defined by the researcher. In other words, the concourse is sorted into various categories of interest (Webler & Danielson, 2009). The aim of this is to ensure that all aspects of the topic are covered and at the same time make certain that the statements do not favor one aspect over another. This categorization therefore reduces the researcher bias. After identifying these categories, a check for duplication among the statements should be executed (Coogan & Herrington, 2011). To apply structured sampling, a choice is made between a deductive design or an inductive design of the Q-set (McKeown & Thomas, 1988). The former imposes the categories based on existing theory, whereas in the latter they are constructed

based on patterns observed within the concourse itself (Van Exel & De Graaf, 2005). Damio (2016) states that these categories are considered 'artificial' since the selection is done by the researcher themselves, and thus according to their interpretation of the statements. This implies that there would be different categories if another researcher were to categorize the same statements.

There are certain qualities that good statements should possess. One is that they are easy to read and understand, as well as them being short, 'stand-alone' sentences. Another quality is that they should contain 'excess meaning', which means that respondents can interpret them differently (Webler & Danielson, 2009). Additionally, the statements in the Q-set should be representative of the larger process, and thus accurately represent what is said in the concourse (S. R. Brown, 1993). By selecting statements with wording as accurately to the concourse as possible, researcher bias is reduced (Webler & Danielson, 2009). To not solely rely on the researcher's decision-making in determining the final selection of statements, interviews could be held from which any additional statements can be included in the Q-set (Cross, 2005). When it comes to the number of statements to be included in the Q-set, there is no exact number to be used. However, an extensive systematic literature review by Dieteren, Patty, Reckers-Droog, and van Exel (2023) showed that often 30-50 statements are used.

Selecting the P-set

The P-set is the term used in Q-methodology to refer to the participants in the study, the group of respondents. Since Q-methodology aims to identify and explain relevant viewpoints on a specific topic, it is implied that the P-set should be diverse and capture those different viewpoints, rather than a sample that is representative of particular characteristics of a population (Nieuwenhuis et al., 2022). Therefore, the respondents are selected deliberately rather than randomly, to include those who are deemed relevant in the context of the topic (Van Exel & De Graaf, 2005). The intention is to select those most likely to have different views (S. R. Brown et al., 1999). To explain this reasoning even further, a comparison can be made between Q-studies and R-type studies: the respondents in Q-studies are comparable to the survey questions in R-studies. Such questions are not randomly selected but are chosen intentionally because the researcher believes that they will lead to interesting insights. Similarly, researchers in Q-studies select their respondents because they believe those individuals have something of interest to say (Webler & Danielson, 2009).

Since in Q-methodology the respondents are the variables instead of the statements, which was briefly touched upon already but is further explained in section 3.2.3, the number of respondents does not have to be very high (Damio, 2016). Just as there was no exact number to be used for the size of the Q-set, the same goes for the size of the P-set. However, the same extensive literature review as mentioned previously expressed that in most instances, between 20 and 50 respondents are interviewed (Dieteren et al., 2023). A rule of thumb is that a researcher should aim for at least three people to load highly on each perspective, but naturally, it's not possible to know in advance how people will load on them and therefore it is sensible to plan for more respondents. However, it is also impossible to foresee the amount of perspectives that will be uncovered. Hence, Q-researchers are granted considerable flexibility in their choices regarding the number of respondents (Webler & Danielson, 2009). When it comes to the recruitment of respondents, several methods can be applied. One approach involves utilizing a source who is acquainted with individuals who are engaged in and well-informed about the concourse. An alternative method is snowball sampling, in which first a key individual is identified who is closely connected to the topic, who is then requested to provide recommendations for suitable respondents. Subsequently, these individuals are contacted and prompted to suggest additional potential respondents. Lastly, respondents may also be chosen according to their contributions to the concourse (Webler & Danielson, 2009).

Supplementary remarks

Additional activities in this first phase are the preparation of a Q-grid and the composition of the Condition of Instructions (CoI) (Damio, 2016). The Q-grid is what is used by the respondents in the next step to sort the statements. When it comes to this grid, there is something to keep in mind about the flatness of its quasi-normal distribution: if the respondents have strong and clear opinions on the topic of the study, it should be flatter, whereas if the respondents' interest, knowledge or involvement is expected to be low, it should be steeper to leave more room for indecisiveness in the middle (Van Exel &

De Graaf, 2005). The CoI consists of an overview of what the study is about and instructions on how to do the Q-sort, including the question that the respondents have to consider while performing this (Damio, 2016).

3.2.2 Execution

The Q-sorting is when the respondents sort the statements from the Q-set into the Q-grid (Damio, 2016). They are first asked to divide the statements into three categories: agreeable, disagreeable, and the remainder (S. R. Brown, 1993). After this, they will sort the statements on the grid. In doing so, they are considering the statements in the context of each other, effectively making comparisons between all possible pairs of statements (Peritore, 1989). The resulting grid therefore shows the values that the respondent attributes to each statement, relative to the other statements. The respondent's grid filled out with the statements is referred to as the completed Q-sort (Damio, 2016). It is advised to interview the respondents after they've completed the Q-sorting so that they can elaborate on their point of view (S. R. Brown, 1993).

3.2.3 Evaluation

Analyzing the results (Q-analysis)

The analysis is at times called the scientific foundation of Q-methodology according to Van Exel and De Graaf (2005) since this entails a process of a technical and objective nature, as opposed to the purely subjective sorting preceding it. The type of analysis applied is called factor analysis. This is a method that unveils underlying reasons behind patterns found within an extensive dataset (Webler & Danielson, 2009). In Q-methodology specifically, the factor analysis identifies patterns among the Q-sorts and is therewith aimed at identifying respondents who have sorted the statements in a similar matter and therefore share the same perspective on the specific topic (Nieuwenhuis et al., 2022).

The analysis generates a certain amount of 'factors', which are essentially groups of respondents. The grouping of respondents is not arbitrary. How it works is that for all the Q-sorts as put forth by the respondents, a so-called factor loading is computed. This indicates to what extent every Q-sort corresponds to each factor (Van Exel & De Graaf, 2005). Respondents who have sorted the statements in a similar matter on the Q-grid will load significantly on the same factor (Coogan & Herrington, 2011). A general rule of thumb is that the absolute value of a factor loading should be 0,30 or larger to be considered significant, but the exact threshold value depends on the sample size and therefore differs for each study (Chumney, 2012).

After the initial factor extraction, it could prove difficult to interpret the factors based on their loadings. This can be explained by an effect of the criterion of this analysis that the first factor accounts for the bulk of the variance. Because of this, it's usually the case that all variables (in other words, respondents) have a high loading on that factor and small loadings on the others (*Exploratory Factor Analysis: Theory and Application*, n.d.). Factor rotation can then be applied to make this loading pattern more pronounced and clearer, thus approaching a so-called simple structure in which each variable loads high on one factor and low on another (Chumney, 2012). There are two types of rotation: orthogonal, which assumes no correlation between the extracted factors, and oblique rotation, which assumes that there is (J. D. Brown, 2009). Before rotation is applied, the factors are independent of each other, meaning their correlation is zero, and thus orthogonal rotation ensures that this stays the same (Field, n.d.). The most-used method of orthogonal rotation is varimax (*Exploratory Factor Analysis: Theory and Application*, n.d.). This is also the one applied in this research. It is beyond the scope of this research to provide a more in-depth explanation of the mathematics behind factor rotation.

Each factor represents a specific arrangement of the statements. How this works is that factor scores can be computed for the statements, which represent the normalized weighted average statement score (Z-score) of respondents defining that factor. By utilizing their Z-scores, the statements can be placed on the original quasi-normal distribution (the Q-grid), yielding a composite Q-sort for each factor(Van Exel & De Graaf, 2005). Z-scores are expressed in standard deviations and therefore indicate the distance of a statement from the center of a distribution. For example, a score of -3.0 signifies a statement positioned three standard deviations below the distribution's midpoint, representing a statement at the extreme left end of the Q-sort (Webler & Danielson, 2009). The resulting arrangements of

statements are idealized Q-sorts, constructed by the software instead of a respondent. The idealized Q-sort of a factor illustrates how a theoretical respondent with a 100% loading would have arranged all the statements (Van Exel & De Graaf, 2005).

There is a risk of researcher bias during this analysis phase as well, since the choice of a specific factor solution also involves making a methodological assessment (Webler & Danielson, 2009). There is no ideal mathematical answer to the number of factors that should be extracted from the analysis. There are, however, some key things for the researcher to consider when deciding on this number. According to Coogan and Herrington (2011) these are the eigenvalues of each factor loading, differentiating statements, and the number of respondents loading on each factor. Webler and Danielson (2009) specify the first by explaining that factors with Eigenvalues less than 1.0 are often disregarded as they are deemed insignificant. Additionally, they agree with the second one, elaborating that low correlations between factors are preferred since highly correlated factors express similar concepts, and also introduce three new criteria to help researchers choose between various numbers of factors. First, they say to strive for simplicity by using fewer factors, as this facilitates a better understanding of the viewpoints. Second, they emphasize clarity, meaning that the optimal factor solution entails each respondent loading significantly on only one factor. The aim should be to reduce the presence of so-called 'confounders', respondents loading on multiple factors, and 'non-loaders', those not loading on any factor. Lastly, they mention stability: when examining outcomes with varying numbers of factors, certain groups of respondents consistently cluster together, suggesting genuine similarity in their perspectives. They argue that a robust set of factors should retain as many of these stable clusters as possible. Another requirement that is adhered to, is that of a minimum of two significant loadings for each factor (Suprapto, 2016)

Interpreting the results

It is the researcher's job to review the idealized sorts belonging to the factors and provide a description of each one. These descriptions, and the sorts behind them, are referred to as 'social perspectives' as they encompass subjective expressions from numerous individuals (Webler & Danielson, 2009). This description is formulated by comparing the positioning of the statements in each factor's idealized Q-sort, as well as by using any additional elaborations given by the respondents on their placement of the statements, and of course cultural knowledge (Damio, 2016).

The factor scores on each factor's idealized Q-sort highlight noteworthy statements that warrant special attention in formulating a description for the factors. Typically, statements ranked at the sort's extreme ends, known as 'characterizing statements', are utilized to develop an initial description of the viewpoint represented by that factor. On the other hand, distinguishing and consensus statements can serve the purpose of underscoring differences and similarities between the factors (Van Exel & De Graaf, 2005). Explanations provided by the respondents can aid in interpreting the factors, validating interpretations post-analysis, and can act as illustration material by providing quotes (Van Exel & De Graaf, 2005). Such comments provide insights into why respondents positioned a particular statement where they did, shedding light on reasons such as why they ranked a certain one highly while rating a similar one much lower (Webler & Danielson, 2009).

Upon completing the descriptions, it can be beneficial to share copies of the social perspectives with respondents who had a high loading on the factor. They can be requested to provide feedback regarding the correctness of the interpretation. However, when doing this, it is important to remember that respondents will seldom align precisely with a social perspective and it's often feasible to anticipate a respondent's objections about it by examining the statements they sorted differently from the factor (Webler & Danielson, 2009).

4

Design of the Q-study

4.1 Concourse selection and Q-set: aspects

4.1.1 Defining the concourse on participation & selecting the subset

To map the concourse relating to the success factors for public participation in the construction sector, 69 literary sources discussing this topic were observed, chosen based on their title and abstracts. From this group, a selection was made based on the content, which resulted in the inclusion of 34 articles in the analysis. In this research, the concourse consists of all possible aspects that contribute to a successful participation process. The analysis resulted in the identification of 490 aspects that could be used to determine the success of a participation process. This concourse was too large to be used in this research and thus had to be compromised to a subset. In this research, structured sampling is applied in the development of the Q-set, with an inductive design, of which the meaning was explained in section 3.2.1. Specifically, 14 categories were constructed based on an examination of the concourse itself, over which the aspects were divided to methodically comprise it into a subset. The categories and what aspects are covered by each are featured in table 4.1. These categories simply served to structure the selection of aspects and were not used further in the research, which is why they are not elaborated upon. Aspects that did not fit into any of these categories were rejected, and duplicates were removed. In doing so, the subset of the concourse was reduced to a total of 339 aspects. By iteratively grouping the statements within each category based on their theme and merging similar statements, the set was further reduced. This second selection was based on occurrence in literature since aspects of the same type, that came from different sources, were combined. This process again ensures that the selected set of statements covers the entire topic of interest. This selection resulted in a preliminary Q-set with 40 statements, which came from 33 of the analyzed articles.

4.1.2 Final Q-set

To determine the final Q-set, the representativeness of the selected statements was checked by interviewing two participation advisors. They were also asked if they felt like any aspects were missing, in which case these were included in the Q-set. These advisors agreed with the set of statements that was created, apart from advising to combine two of them because they were quite similar. Additionally, the interviews brought forth two more statements to be included, bringing the final Q-set to a total of 41 statements. These statements are presented in table 4.1, which also shows the distribution of them among the categories, and the literary origin of each of them is given separately in table 4.2, including the previously mentioned occurrence count (the categories are here simply indicated by the lines).

Table 4.1: Complete Q-set as used in this research

Nr.	Statement
	Early involvement
1	The public shall be involved as early as possible.
2	The public is not involved once, but on multiple occasions.
3	The public is involved before final plans are adopted.
	Participant selection
4	The composition of the group of participants in the process is representative of the stakeholders of the initiative.
5	The process is open to participation by anyone who thinks they will be affected by or has ideas about the initiative.
6	Identifying and creating an overview of the initiative's stakeholders.
7	Gathering information about the stakeholders - such as influence, perceptions, roles, interests, etc.
8	Having many people participate in the process.
9	No requirement of specific skills or high level of prior knowledge of participants.
10	Leveraging any expertise of participants.
	Transparency
11	Transparency of the process - such as on progress, dilemmas and trade-offs.
	Communicating information
12	All necessary information about both the process and the initiative itself will be made available to the public.
13	Participation organizers have knowledge of the local situation, such as language level or culture, and the ability to adapt to it.
14	Information about both the process and the initiative itself is made understandable to the public.
15	Using a variety of ways to make information about both the process and the initiative itself public.
16	Continuously and clearly announcing participation opportunities and how the public can participate in them.
17	Effective communication and information exchange between all parties involved in the process.
	Supervising party
18	The process is led by mediators experienced in mediating participation.
19	The process is organized and led by an independent, unbiased mediator.
	Accessibility
20	The process is time-efficient for participants.
21	The activities in the process take place at convenient and accessible dates and times.
22	The activities in the process take place in attractive and convenient locations.
	Influence
23	The output of participation actually influences the design of the initiative.
24	Participant expectations are managed by formulating hard and clear boundary conditions within which participation takes place.
	Definition
25	There is a clearly defined purpose for organizing participation.
	Design
26	Not one participation method is used, but several.
27	The participation method is situation-specific and chosen based on the intended context and purpose.
28	The structure of the process is made as clear as possible to all participants in advance.
29	There is a written participation plan, which among other things clarifies the nature and scope of participation, and participation report.
	Resources
30	Sufficient time is allocated for the process.
31	The process is cost-effective.
32	Support for / confidence in the process from the initiator himself.
	Feedback
33	Providing feedback to participants on how their input was considered and what changes were made because of their involvement.
34	Gauging participants' satisfaction with the process, both during the process and afterwards.
35	The process is flexible and can be modified while it is underway.
36	Providing timely responses to public opinions and questions.
	Conditions of cooperation
37	Building and ensuring both the trust of participants in the process and mutual trust and respect between participants.
38	All participants are treated equally.
	Conflicts
39	The presence of an effective conflict handling strategy.
	Outcome
40	The process results in public satisfaction with both the process itself and being informed.
41	The process results in low resistance to the initiative.

Table 4.2: Statement sources

Statement	Webler (1997)	Del Furia and Wallace-Jones (1998)	Rowe and Frewer (2000)	Lidskog and Sonervd (2000)	Webler et al. (2001)	Bond, Palerm, and Haigh (2004)	Creighton (2005)	Enserink and Koppenjan (2007)	Reed (2008)	Carnes, Schweitzer, Peelle, Wolfe, and Munro (1998)	Yang, Shen, Ho, Drew, and Chan (2009)	Tabish and Jha (2011)	Gauthier, Simard, and Waaub (2011)	Luvet, Schlaepfer, Parlange, and Buttler (2012)	Bryson, Quick, Slotterback, and Crosby (2013)	Vicente, Fidélis, and Méndez (2015)	Papa (2016)	Fummey (2016)	Münster et al. (2017)	Oppong, Chan, and Dansoh (2017)	Daqiliute and Juozapaitiene (2018)	Khatleli and Mokgosi (2018)	Liu, Wang, Xia, and Ni (2018)	Landauer and Komendantova (2018)	Khatleli (2019)	Xiao (2019)	Niitamo (2020)	Gawronska, Gawronski, Król, and Jarosz (2020)	Li, Qian, Mlecnik, and Visscher (2021)	van Hulst, de Jong, and van Meerkerk (2022)	Waris, Khan, Abideen, Sorooshian, and Ullah (2022)	Suškevičs, Ehrlich, Peterson, Hiiemäe, and Sepp (2023)	Kumar, Singh, and Pandey (2023)	Interview 1	Interview 2	**Sum**
1		x	x	x				x		x		x	x	x			x					x					x	x		x		x			*14*
2		x					x		x	x	x							x			x			x				x		x			x		*10*
3						x																							x							*2*
4			x	x	x				x			x			x		x			x				x			x						x	x	*12*
5	x						x																							x			x		*4*
6	x						x			x	x			x			x	x	x		x	x			x					x					*12*
7											x			x	x			x	x		x	x								x				x	*9*
8					x										x																x				*3*
9	x																																x		*2*
10																																	x		*1*
11			x			x								x					x										x	x		x	x		*9*
12					x	x		x									x							x									x		*6*
13					x														x				x											x	*4*
14	x			x					x							x	x							x				x					x		*8*
15															x	x	x							x				x						x	*6*
16							x		x																										*2*
17													x						x											x					*3*
18					x					x				x								x						x							*5*
19	x		x		x																							x					x		*5*
20	x																																x		*2*
21					x																							x					x		*3*
22					x																							x							*2*
23			x	x	x			x	x						x						x			x								x			*10*
24																																		x	x	*2*
25							x			x	x						x	x	x			x		x					x	x			x			*11*
26					x		x		x						x									x												*5*
27							x			x				x	x						x		x	x						x						*8*
28	x							x																x						x			x			*4*
29			x		x		x								x						x			x					x	x				x	x	*11*
30														x							x				x											*3*
31	x		x		x									x					x					x					x	x						*8*
32																														x	x			x		*3*
33									x																						x		x		x	*4*
34									x					x					x																	*3*
35															x		x							x								x		x		*5*
36									x															x		x										*3*
37					x					x			x	x	x				x				x						x							*8*
38					x					x													x				x		x							*6*
39		x									x								x					x								x			*5*
40															x																			x		*2*
41									x						x																	x				*3*

4.2 The participant group

As described in chapter 3, the number of persons that participate in the research is relatively small in Q-methodology, but this so-called P-set does have to be representative. This paragraph first describes the selection of the P-set and then dives into the characteristics of the respondents whose contributions are included in the research.

4.2.1 Set preconditions and selection of the P-set

To make sure that the right people took part in the survey, some preconditions were drawn up to determine who was suitable for participating in the research:

- He or she belongs to one of four groups: (decentralized) government, a consulting organization, a developer, or lastly a (resident) advocacy organization.
- He or she has experience in that role with at least one participatory process for a construction project in a residential area.

The respondents were selected from the researcher's network. Some were individual connections and many resulted from one specific connection: a participation advisor. This person had an extensive network that covered all four groups and was able to provide contact information for many people. In the end, 74 persons were approached to take part in the survey. They were distributed among the four groups as follows: 15 in the (decentralized) government, 37 in a consulting organization, 9 developers, and 13 people from advocacy organizations. The large number coming from consulting organizations is explained by the fact that the graduation company falls into this category, meaning that in addition to people from the researcher's network, employees from this company could be contacted, resulting in a larger group. Each of the projected respondents has been contacted by telephone where possible, or otherwise through email, in the last week of November to ask if they were open to being approached for my research. In this short conversation, it could be clarified what would be expected from them in the survey, how much time it would take them, and from which email address they would be receiving the link. Only when their answer was affirmative, were they sent an invitation for the survey through email on December 1st. The thought behind this was that people would be more inclined to take part in a survey when they have already been introduced to it and are expecting the invitation, leading to more of them completing the survey than when it is sent to them out of the blue.

4.2.2 Characteristics of the P-set

In total, 42 people have filled out the survey. Two of them did not meet the set preconditions as defined in the previous paragraph: these respondents indicated not having been involved in a participatory process for a construction project in a residential area. Therefore, only 40 of the completed Q-sorts were analyzed in this research. The statistics of the characteristics of those respondents are shortly described and depicted in the figures in this paragraph, highlighting what stands out at first glance. The characteristics themselves, as indicated by the respondents, can be found in appendix C. The information on these characteristics could play a role in the succeeding analysis: perspectives might be shared by those in the same category. This hypothesis is researched for the third sub-question in chapter 6. To this end, it's beneficial for the validity of any conclusions drawn that each answer group is well-represented.

The distribution of the respondents over the four groups is quite even, as can be seen in figure 4.1. There is not one group that is over-represented while another only makes up a small percentage of the total, and thus the previously mentioned desired variety was obtained. There is however one group that contains a few more respondents than the others, which is the category 'consulting organization'. This doesn't come as a surprise since a larger amount of people in this category were approached to take part in the survey compared to the other groups. The reason for this is that the participating graduation company also falls into this category and thus in addition to the contacts gathered from the researcher's network, the company's employees were contacted. What stands out in figure 4.2 is that for more than a third of the respondents, work experience in the construction industry exceeds twenty years. There is no category with a lot less respondents, therefore the variety is considered to be as desired. When it comes to how far into the development process the respondents are usually involved, only one of them selected the 'definition phase', as can be seen in figure 4.3. On the other hand, almost half of the

respondents indicated being involved until the design phase. The desired variety is less here since one category is very much underrepresented. However, seeing as this is just one respondent, this category could perhaps simply be disregarded. It is not expected to have much of an impact on the analysis.

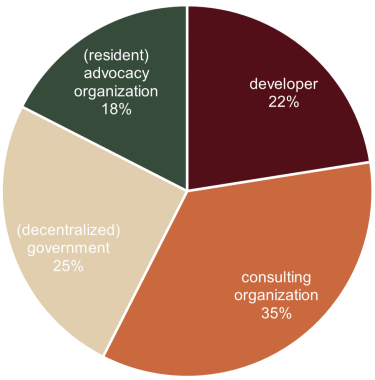

Figure 4.1: The four groups

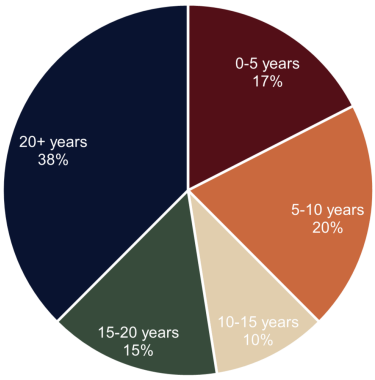

Figure 4.2: Work experience in the construction industry

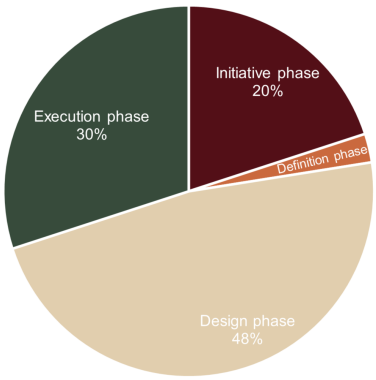

Figure 4.3: Phase in the development process

Figure 4.4 shows that the majority of the respondents have experience with two or more participation processes for construction projects in a residential area. This is considered beneficial for the results of this research since they can draw from multiple examples when filling out the survey. The previously mentioned desired variety was obtained as well: multiple different categories are represented.

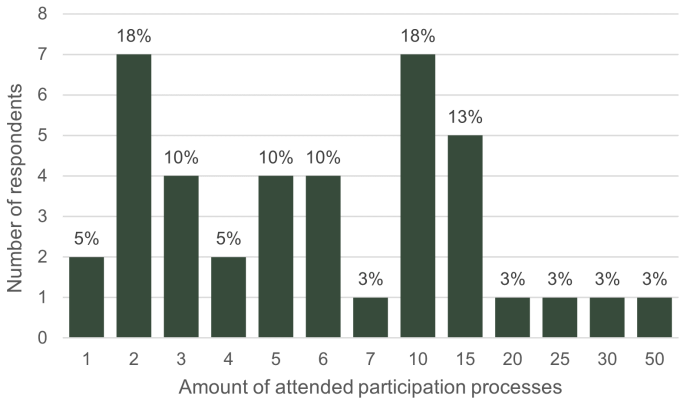

Figure 4.4: Experience with participation processes for construction projects in residential areas

4.3 The execution of the Q-sorting

All Q-sorts of this study were conducted online through a survey. This survey is created with the software 'EQ Web Sort', in which an easy Configurator is used to set up the online project (Banasick, 2023). The reason for conducting the Q-sorts online instead of in real life is so that as many people as possible could contribute without it taking a considerable amount of time both on their part and the researcher's part. The survey was conducted in Dutch since the respondents that were approached were all from the Netherlands. It was split up into four parts and was anonymous. Each part is described in this paragraph and the entire survey with the instructions as given to the respondents can be found in appendix A, as well as the Dutch translations of the statements used in the survey.

4.3.1 Pilot tests

Before distributing the survey, three pilot tests were conducted. These served two goals: to fine-tune the survey's instructions and to remove any remaining ambiguities from the statements. One of these tests was performed face-to-face, while the other two were held online through a video call. The respondents were asked to click through the survey and report back for each of the steps whether the

instruction was clear or if they had any suggestions for improvements. Regarding the statements, they were asked to indicate whether they understood what was meant and to point out any potential vagueness in the wording. No big issues were reported: only a few unclear statements were pointed out, for which a solution was immediately devised, and some pointers were given for structuring the instructions. After these tests, it was assumed that any ambiguity that had existed had been resolved and the survey was ready to be sent out to the projected respondents.

4.3.2 Step 1 - The presort

First, respondents were asked to give a preliminary distribution of the statements into three categories: least important, neutral, and most important. The reason for using this wording instead of, for example, 'disagree' and 'agree' was that the statements were collected from literature in which they were all indicated to be of importance. Phrasing such as 'disagree' has a negative connotation which wouldn't be correct when, according to literature, all statements contribute in some capacity to successful participation. To achieve the aforementioned distribution, the respondents were asked to read each statement with the following line preceding it: 'Important for a good participation process is...'. Agreement with the resulting sentence meant the statement could be placed in the column 'most important', and disagreement with it meant placing it in the 'least important' category. If a respondent had no distinct opinion on a particular statement, they would place it in the 'neutral' column. There were no limits to the amount of statements that could be placed in each category and the respondents were informed that they could make changes to the distribution later. Important here is that each of the respondents was shown the statements in a random order.

4.3.3 Step 2 - The actual Q-sort

The second part consisted of prioritizing the statements, by sorting them on a fixed grid. The grid distribution that was used in this research is depicted in figure 4.5. The preliminary selection performed in the previous step assisted the respondents in doing so, by allowing them to determine the placement per group: starting with the 'most important' statements, then moving on to the 'least important' statements, and lastly tackling the 'neutral' statements.

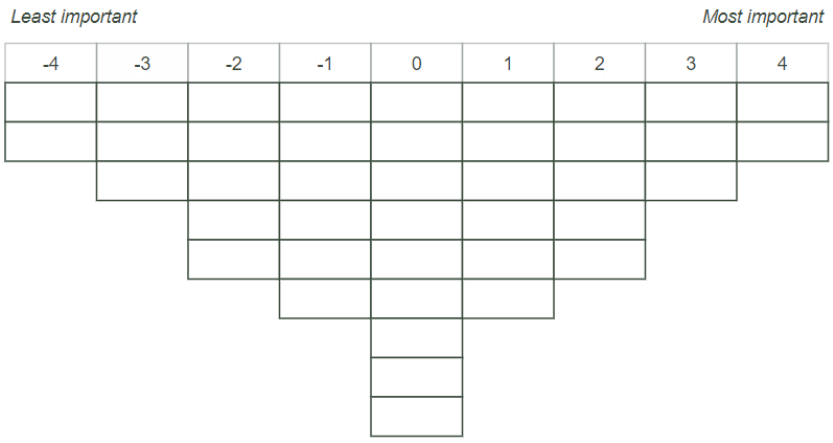

Figure 4.5: The used Q-grid for the Q-sorting with 41 statements

Since a fixed grid was used, there was a limited number of statements that could be placed in each column, unlike the previous step. The respondents were instructed to consider the statements in the first group, choose the two that they thought were most important, and place those in the outermost column with the value '+4'. They were informed of the fact that vertical orientation within a column was of no importance. Then, from the remaining statements in this group, they would choose the three that they felt were the next most important ones and place them in the column valued '+3'. They would repeat this process for the following columns until all statements from the first group were placed in the grid. Then, they would repeat these steps for the second group - the 'least important' category - starting from the '-4' side of the grid. Finally, they would take the 'neutral' group and place its statements in the remaining spots within the grid. If, at this time, a respondent had some places left in either a '+' or a '-'

column, they were asked to consider this and make a conscious decision for the placement of the last statements.

To ensure that respondents adhered to the fixed layout of the grid, it would be indicated if a column contained too many statements or not all statements were placed within the grid. The option to proceed to the next step of the survey would only become available when all statements were placed and each column contained the correct amount. All Q-sorts as completed by the respondents have been added to this report in appendix B.

4.3.4 Step 3 - The postsort

After completing the sorting, the respondents were asked to provide comments for the four statements in the outermost columns, explaining their reasoning behind this placement. These clarifications can be used when interpreting the perspectives to create their description. The inclusion of this step counteracts the disadvantage of performing the Q-sorting online leading to less understanding of the results as mentioned in section 3.1. The option to proceed to the next and final step of the survey would only become available when there was some text written down for each of the four statements.

4.3.5 Step 4 - General background questions

Lastly, the respondents were asked some questions about their background to enable the creation of statistics on their demographic (which have been covered in section 4.2.2) and to enable the research to look into the potential correlation between these characteristics and the perspectives. First, they were asked the open questions of what organization they work for and what their role within this organization is, which allowed for a distinction between the four groups. The next question was how many years of relevant work experience the respondents had in the construction industry, for which they had five options to choose from. Then, they had to select one of four options to indicate how far into the development process they are usually involved in a project. Lastly, the respondents were questioned about the number of participation processes for construction projects in a residential area that they have been involved in in their role. This question was asked to be able to determine whether the respondents met the second precondition.

5

From factors to stakeholders' perspectives

5.1 Factor analysis in this research

After the Q-sorting is performed by the respondents, the fifth step of Q-methodology entails the analysis of the collected Q-sorts. In this research, IBM SPSS Statistics (version 29.0) is used to perform the analysis. As explained in section 3.2.3, factor analysis is applied in Q-methodology. Specifically, Principal Component Analysis (PCA) is used in this research. The Q-sorts as completed by the respondents are given in appendix B. To perform the PCA, this dataset is transposed so that the statements are on the X-axis and the respondents are along the Y-axis. This way, the respondents form the variables and can serve as the input for the PCA. Generally, solutions from factor analysis studies have between two and five factors (Dieteren et al., 2023; Webler & Danielson, 2009). To account for a potential deviation from this standard, solutions with up to seven factors are run in this research.

The setup for the analysis further offers options that can be turned on. For this research, the following were ticked: 'fixed number of factors' set to the various numbers that will be examined as solutions, 'maximum iterations for convergence' set to 40 since no convergence is reached within the standard 25 for the seven-factor-solution, varimax rotation with the same 'maximum iterations for convergence', save as variables with regression method to get the factor scores of each statement, and coefficient display format sorted by size for ease of reading.

5.1.1 Determining the number of factors

To determine the number of factors suitable for this research, the results of different consecutive factor rotations were analyzed on two- to seven-factor solutions. Three rules, mentioned by Suprapto (2016), are applied to determine whether a factor solution is valid. These results are summarized in table 5.1 (the complete factor solutions are provided in appendix D).

Table 5.1: Characteristics of factor solutions

	2-Factor	3-Factor	4-Factor	5-Factor	6-Factor	7-Factor
Cumulative Explained Variance	38,44%	44,55%	50,18%	55,20%	59,66%	63,87%
Number of acceptable factors	2	3	4	4	6	7
Number of defining sorts	34	30	24	22	19	14

1. Cumulative explained variance $>$ 50%
If this is the case, the factor solution explains at least half of the Q-sorts. The two-factor and the three-factor solution both have a cumulative explained variance that doesn't meet the required minimum and are therefore excluded as possible factor solutions.

2. Each factor has at least two defining Q-sorts
A Q-sort is considered defining when it satisfies the following two rules:

- The Q-sort loads significantly on the factor, meaning that its factor loading is larger than 0,403. This is in the case of significance at p < 0,01, calculated by $2,58/\sqrt{N}$ in which N = 41, the number of statements.
- The highest squared factor loading explains more than half of the common variance, $f^2 > h^2/2$, where h^2 is the sum of the square factor loadings of the Q-sort.

This second rule requires further explanation. Every Q-sort (in other words, every respondent) has a loading on each of the factors in a solution. The highest loading of each Q-sort is determined, after which this number is squared (defined as f^2). This is compared with and should be larger than half of the common variance, which is calculated by squaring each of the factor loadings of the Q-sort, summing them up, and dividing the result by two (defined as $h^2/2$). If a factor has no or only one defining Q-sort, that factor is not acceptable. The five-factor solution contains one factor that is not acceptable and is therefore ruled out as a possible factor solution.

3. A high number of defining sorts
Van Exel and De Graaf (2005) argue that a higher number of defining Q-sorts is desired. After having applied the first two rules, only the four-, six-, and seven-factor solutions remain as possibilities. Out of these three, the four-factor solution has the highest number of defining sorts and is therefore selected as the best possible solution according to this final rule.

5.1.2 The distribution of respondents in the applicable factor solution

The performed analysis results in four factors that indicate which aspects are important and which are less important for a public participation process to be considered 'good'. Four respondents do not load significantly on any of the factors and therefore have more or less unique Q-grids. These individuals are included in the calculation of the factor scores by the software, although they do not weigh very heavily in this, but other than that they are not seen as belonging to any of the factors. The multiple-loaders, or confounding sorts, are assigned to the factor in which they have the highest loading. This means that factor one is made up of fourteen respondents, eleven respondents form factor two, eight respondents make up factor three, and factor four is composed of three respondents.

5.2 Interpretation

This is the sixth and final step of Q-methodology. From here on out the factors are called perspectives, since they represent a specific view on the subject. To formulate the descriptions for the perspectives, the factors are interpreted with the help of the idealized Q-sorts (provided in appendix E) constructed from the factor arrays as given in table 5.2. The statements placed on the extreme ends of these sorts are looked at first, to identify the main theme of the perspectives. These are the characterizing statements. Then, to provide a complete description, the more moderately rated ones are observed too, as well as any statements with opposite assessments from other perspectives. Additionally, the explanation of each perspective is aided by the respondents' reasoning provided in the postsort of the survey. The specific statements are referred to in parentheses, with an indication of whether they are placed on the 'most important' side (+), on the 'least important' side (-), or in the neutral column (n) of the perspective's idealized Q-sort. The scores of representative statements of the categories for each of the perspectives are visualized in figure 5.1, giving a clear overview at a glance of where the perspectives match and especially where they differ from each other.

Table 5.2: Q-sort statements and their factor rankings

Statement	Factor 1	Factor 2	Factor 3	Factor 4
1	0	0	0	4
2	1	0	-1	0
3	4	0	1	3
4	2	1	-1	-3
5	2	-4	2	0
6	1	1	-1	-2
7	1	-2	0	1
8	-3	-2	-3	0
9	0	-3	0	-1
10	0	0	-4	3
11	2	2	0	0
12	-2	1	1	2
13	-1	-1	2	-1
14	0	1	2	-2
15	1	-2	-1	0
16	-1	0	2	2
17	1	-1	1	-1
18	-1	3	-3	-1
19	-2	4	-2	0
20	-2	-1	0	-2
21	0	-1	0	0
22	-3	-4	-2	3
23	4	2	-4	4
24	-3	4	4	0
25	-1	3	3	1
26	-2	-3	-2	0
27	3	-3	4	-2
28	-1	0	1	2
29	-4	2	3	2
30	-1	0	1	1
31	-4	-2	0	-3
32	3	1	0	-4
33	2	1	2	2
34	0	-1	-2	1
35	2	-2	-1	-3
36	0	0	0	1
37	3	3	-2	1
38	1	-1	1	-1
39	-2	2	-1	-1
40	0	0	3	-2
41	0	2	-3	-4

Figure 5.1: The perspectives' valuation of representative statements from the categories

5.2.1 Overall evaluation of the aspects

However, before these descriptions are formulated, which indicate the aspects that are considered most and least important for each of the perspectives, some remarks can be made about the overall evaluation of the statements by all respondents. To do so, some statistics have been computed by examining all Q-grids. These statistics are shown in appendix B.1. This showed that the respondents generally agreed the least with the statements '*The activities in the process take place in attractive and convenient locations*' (22) and '*The process is cost-effective*' (31). These have the lowest average scores ($<$ -2) and they both have -4 as the most common score as the only ones. On top of that, the former statement did not even receive any ratings higher than 0. There were two more statements with an average score below -2, with which the respondents thus also disagreed the most strongly in general: '*Having many people participate in the process*' (8) and '*Not one participation method is used, but several*' (26).

On the other hand, there were seven statements with which the respondents generally agreed the most, since these had the highest average scores ($>$1). These are, in descending order of their average score: '*The public is involved before final plans are adopted*' (3); '*Providing feedback to participants on how their input was considered and what changes were made because of their involvement*' (33); '*There is a clearly defined purpose for organizing participation*' (25); '*Building and ensuring both the trust of participants in the process and mutual trust and respect between participants*' (37); '*The output of participation actually influences the design of the initiative*' (23); '*Transparency of the process - such as on progress, dilemmas and trade-offs*' (11); and '*Participant expectations are managed by formulating hard and clear boundary conditions within which participation takes place*' (24). Statement 23 also has a most common score of +4, which is the only one out of all the statements for which this is the case.

Something stands out here. As mentioned in section 1.2, 'support for the project' is generally thought in practice to be considered an important side-effect or even goal of organizing participation. However, in the survey, the statement that covers this (number 41 '*The process results in low resistance to the initiative*') is not among the group of highest-rated statements. Even more so, this statement has a negative average score (-1,08), with its most common scores being -4, -3, and -1. Thus, in this survey, having low resistance as a goal for organizing participation is not considered as important, compared to other aspects. This result therefore does not seem to be in line with the thinking in practice.

5.2.2 Perspective 1: 'A trusted process leading to influence by the right people'

People with this perspective find it important that the outcome of the process actually influences the design of the initiative (23+). To achieve that, parties must be involved before final plans are adopted (3+). It is considered important that participants are confident in the process (37+) and trust that their input will be properly considered. This confidence is already being created by the choice of a situation-specific method (27+). The process should also be flexible and adaptable (35+), which is what distinguishes this perspective the most from the rest. Additionally, respondents with this perspective believe that no hard boundary conditions should be set (24-), as these '*hinder alternative solutions and thus have a more negative impact on the confidence and the process*' (respondent 34). What also contributes to this confidence and is considered very important in this perspective is that the process must have a sincere intention of the initiator (32+). This importance of the intent is reiterated by respondent 1, who states '*a written participation plan is required in the EPA but this is not a requirement for success, the intention all the more*' (29-). What also contributes to trust and has been indicated as an important aspect in this perspective is the transparency of the process (11+). People with this perspective want to be heard above all, and the setting in which that happens is secondary to that (22-): '*rather have influence on a stool than no influence in a luxurious armchair*', as expressed by respondent 39. Quantity does not matter from this perspective, it's really about adding value to the initiative. After all, the goal is not to have many participants (8-), it's only '*important that the participants can represent the whole group*' as stated by respondent 37, i.e. that the group is representative (4+). Essentially, people with this perspective consider participation to be good if trust is created and the input provided actually influences the initiative.

The description of this perspective can be juxtaposed with the literature where it can be placed on the *Ladder of Citizen Participation* as introduced in chapter 2. Since this perspective demands that the input from participants in a process is genuinely considered, it appears to be situated in the category 'degrees of citizen power'. When translating this to the ladder focused on the Dutch context, it would be placed on the top step: 'co-decision-making'.

5.2.3 Perspective 2: 'A clearly defined process resulting in greater support'

This perspective's focus is on having and following a clear and well-organized process. A clear goal must be set and boundary conditions should be established (24+, 25+) because, as respondent 16 states, '*this brings the process guidance and clarity*'. This is a big difference compared to the first perspective, where setting boundary conditions is seen as a very negative thing. In addition, respondents with this perspective consider it very important that the process is led by an independent and experienced mediator (18+, 19+). What sets this perspective apart from the other three, is the importance placed on having an effective conflict handling strategy (39+). These things ensure that there is confidence in the process, which is seen as an important foundation (37+) to properly discuss the content. A secondary objective pursued by this is that of low resistance to the initiative, or in other words, creating support (41+). That is why it's also considered fairly important that the output of participation actually influences the design of the initiative (23+), because: '*You undertake participation to get people to think along about the design. If you then don't do anything with the output, at some point people will start resisting*' (respondent 33). Since having a clear structure is considered very important in this perspective, respondents believe that it's okay to use one method rather than several, as long as it's the right one for the situation (26-). Additionally, this perspective believes that not just anyone who thinks they are being affected or has ideas about the initiative should be allowed to participate (5-), but '*the process should be open to anyone who is actually affected, it's okay for this to be delineated*' (respondent 15). Attractiveness and comfort of the location (22-) are considered irrelevant, but '*it's primarily about accessibility*' (respondent 8). Essentially, people with this perspective have a positive opinion about participation as long as the organized process is very clear, professional, and properly followed, resulting in greater support for the initiative.

When juxtaposing the description of this perspective with the *Ladder of Citizen Participation* literature, it too can be placed in the category 'degrees of citizen power'. However, it will be at a lower step on the ladder than the first perspective, because the priority here is the organization of the process itself and the importance of influence is secondary. On the ladder focused on the Dutch context, this perspective would be situated on the middle step: 'advising'. Since this perspective is focused on the

process, it is interesting to reflect on the process management literature that was described in chapter 2. The preference for establishing hard and clear boundary conditions and a goal seems to contradict what De Bruijn and Ten Heuvelhof (2008a) mention about having boundaries and goals that are too strict. This is interesting because on this point the perspective thus does not seem to have a process management mindset, even though they find the process itself of the utmost importance. However, the importance that is placed on trust does tie in nicely with what is stated by Bednar and Henstra (2018) and also the reluctance to allow anyone with an opinion to participate is in line with the process management literature (De Bruijn & Ten Heuvelhof, 2008b).

5.2.4 Perspective 3: 'Achieving satisfaction with a tailor-made process'

The foundation of this perspective is the same as for perspective 2: the process must be well prepared, with expectation management being important and ensured through imposing boundary conditions and a goal for participation (24+, 25+). This perspective differs, however, in that it additionally seeks satisfaction with how the process went down (40+). To achieve that satisfaction it is considered very important to follow a tailor-made process (27+), unlike perspective 2, which is outlined in a written plan (29+). No value is attributed to having a large number of participants in the process (8-). It's striking that there thus seems to be a pursuit of quality (tailor-made) over quantity, but at the same time, it's not a goal to leverage participant expertise (10-). It's considered important to continuously and clearly announce participation opportunities and how the public can participate in them (16+). What is unique about this perspective compared to the other ones is that importance is placed on organizers knowing the local situation (13+). While satisfaction is sought after, this doesn't mean that people with this perspective necessarily want the design of the initiative to be modified based on the outputs of participation (23-), because as respondent 30 points out, '*it may be that people don't agree on the content because they truly want something different*. Unlike perspective 2, having an experienced or independent mediator (18-) is not considered as important: '*this choice should be left to the developing party based on the context of the plan*' (respondent 4). So here again, the importance of a situation-specific approach is reflected. Essentially, people with this perspective feel that participation is good if the process is situation-specific, followed well and there is satisfaction with how it went down, regardless of whether it resulted in adjustments to the design of the initiative.

The juxtaposition of this perspective's description with the *Ladder of Citizen Participation* literature leads to placing it in a different category than the previous perspectives. That's because, in this perspective, ensuring that the participants' input is considered is not rated as important as in those other two. This leads to it being situated in the category 'degrees of tokenism', which falls lower on the ladder than the category in which the first two were placed and was described as partial participation. When looking at the ladder focused on the Dutch context, it would be placed at the second step from the bottom: 'consulting'. This perspective is again focused on the process and therefore is reflected upon based on the process management literature. The same is true here when it comes to the preference for putting down boundary conditions and a goal: this seems to contradict De Bruijn and Ten Heuvelhof (2008a). So again, the perspective does not seem to have a process management mindset on this point, even though they too find the process itself of the utmost importance. Trust is not one of the aspects with a high score in this perspective, whereas that was the case for perspective two. Again, not wanting simply a large number of participants in the process is in line with what De Bruijn and Ten Heuvelhof (2008b) said.

5.2.5 Perspective 4: 'As long as everyone is heard'

This perspective's foundation corresponds most closely to perspective 1: having influence is again prioritized here (23+). However, timing is considered even more important for this, because not only should parties be involved before final plans are adopted (3+) which is also the mindset in the first perspective, but really at the earliest possible stage (1+). For example, respondent 38 states: '*There are often already fairly concrete plans when the participation starts. Residents then quickly get the feeling that everything has already been decided and participation is only for appearances*'. This perspective places value on continuously and clearly announcing participation opportunities and how the public can participate in them (16+). People with this perspective feel that early involvement gives them the most influence: '*if that's the case, adjustment of plans is still possible if there are major objections and/or great ideas*' (respondent 11). Thus, people who adhere to this perspective preferably involve

stakeholders already when there's only a rough idea rather than an already more detailed plan (even if that plan was not yet fixed). It is considered more important that everyone who thinks they will be affected by the initiative or has ideas about it is allowed to participate than that the group of participants is representative (5n, 4-). This is different from the first perspective, where also representativeness weighs heavily. On the other hand, what's more important in this perspective compared to the first one is the presence of a written participation plan (29+). This also links to the fact that less value is placed on flexibility of the process (35-). It's considered somewhat more important to make the structure of the process as clear as possible to all participants in advance (28+), although the selected method does not have to be situation-specific (27-). It's also fine if the initiator organizes participation as a "must do", to check off a box, instead of with a more sincere intention (32-). What distinguishes this perspective from the other three is that leveraging the expertise of participants is highly valued (10+). Respondent 40 argues this as follows: '*Some individuals are good at assessing interests but also the possibilities and effects of certain choices in a process/initiative and how the environment functions. That is undeniably an added value for an initiative and process which is often conducted by people who are actually at a very great distance*'. Essentially, people with this perspective have a positive view of participation when the design of the initiative is changed according to the input provided by participants, who were involved from the start and whose expertise is valued.

This last perspective's description is again juxtaposed with the *Ladder of Citizen Participation* literature. Like the first perspective, this one attributes high value to the genuine consideration of the participants' input. Therefore, it is also placed in the category 'degrees of citizen power'. At the same time, however, this final perspective pays more attention to having a well-organized process, which puts it at a lower step on the ladder than the first perspective. Yet, since the input is still prioritized over the organization of the process itself, it is on a higher step within this category than the second perspective. When converting this to the ladder focused on the Dutch context, it would be placed on the second step from the top: 'co-creating'.

5.2.6 Similarities and differences between perspectives

As indicated by the descriptions provided in the previous sections, the perspectives are opposing but they also have some things in common. One thing that immediately stands out is that they can be clustered based on their main component: one and four assign importance to the output and having influence, while two and three both focus more on having a clear process organization and following this properly. The statements are evaluated based on their place in the Q-grid of each perspective. In doing so, statements placed at the more positive and negative ends and that are considered to be either controversial or consensus are used for comparison. Figure 5.2 visualizes the identified similarities and differences between the perspectives using a Venn diagram. The areas in which three of the perspectives overlap, meaning there is one outlier, have purposely not been filled in. Instead, for those instances the outlier has been noted for that individual perspective. The distinctive aspect of each of the perspectives is displayed in bold letters and these are aspects that the other three perspectives all find unimportant for good participation while that one perspective does consider it important. Other aspects noted for individual perspectives are not necessarily unique, so there is another perspective with the same stance on it (important or not) but that specific perspective has a stronger opinion on it.

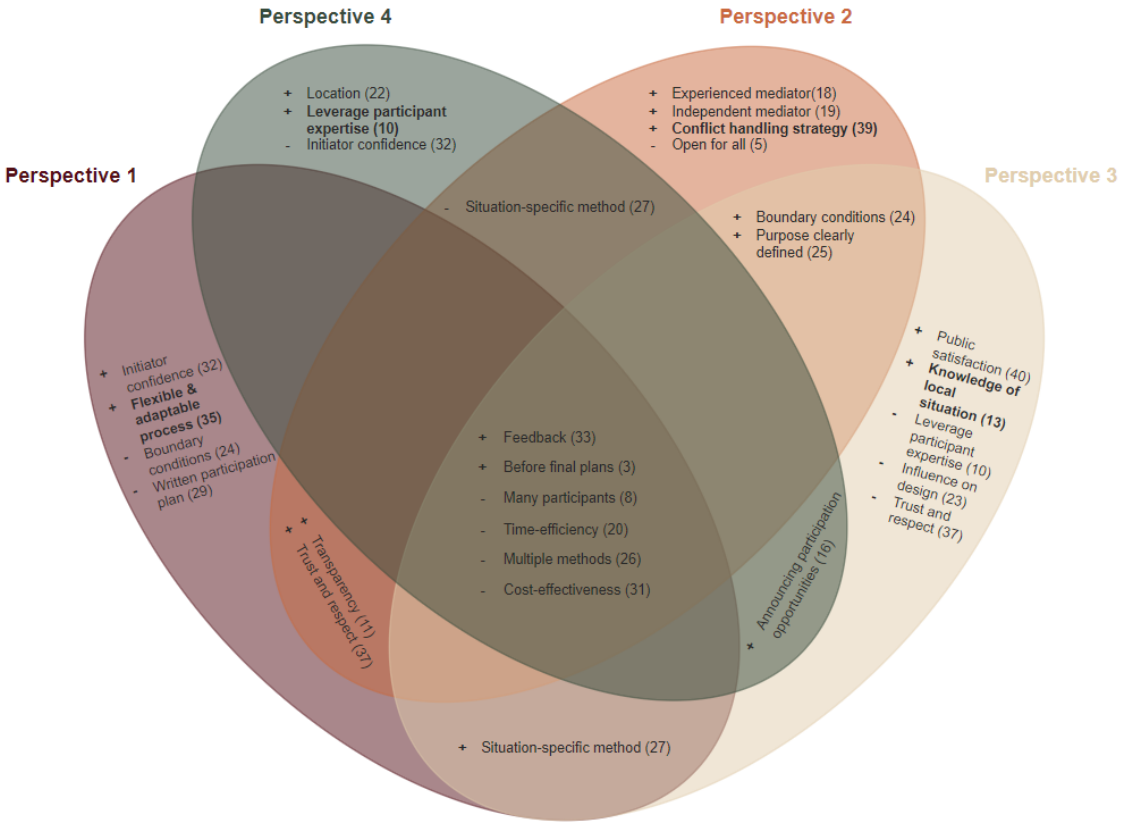

Figure 5.2: Similarities and differences between perspectives

The perspectives agree on two aspects that they are the most important for good participation processes and on four aspects that they are less important for this. This was determined by looking at the grid rankings of the statements within each of the perspectives. Statements for which all perspectives had a positive ranking or three positive rankings while the fourth rated it as neutral are seen in the context of this research as statements that are generally agreed with, and thus considered important aspects. Similarly, statements with negative rankings in all perspectives or three negative values and one neutral rating are seen as statements that are generally disagreed with and thus considered less important aspects. Starting with the consensus statements, the perspectives collectively believe that *providing feedback to participants* (33) and *involving the public before adopting final plans* (3) are important for good participation. On the other hand, the perspectives collectively express that *having many participants* (8), *a time-efficient process* (20), *the use of multiple methods* (26), and *cost-effectiveness* (31) are the least important for good participation.

Perspectives one and two overlap in their desire for transparency as well as trust and respect, whereas perspective three places little value on the latter. Perspectives one and three agree on the importance of a situation-specific method, while perspectives two and four both place little value on this. Perspectives two and three overlap in the importance placed on formulating boundary conditions and having a clearly defined purpose, but at the same time the first perspective doesn't consider the former an important aspect. Lastly, when comparing perspectives three and four, it is observed that they find it important that participation opportunities are continuously and clearly announced.

Besides where the perspectives match, their differences are also of interest to note, if not more important than their similarities. As the figure shows, the distinctive aspect of perspective one is the call for a flexible and adaptable process. Perspective two underlines the importance of having an effective conflict handling strategy while perspective three values when organizers have knowledge of the local situation and can adapt to it. Furthermore, the unique part of perspective four is the appreciation of leveraging participant expertise.

6

Characteristic-dependence

The general background questions in the survey asked for the characteristics of the respondents. There could be a relationship between such a characteristic and the perspectives, which is explored in this chapter. The choice of the type of analysis to investigate this depends on the variables' levels of measurement. There are four basic levels: nominal, ordinal, interval, and ratio. Each high level contains all the properties of the lower levels plus a new one. Nominal variables have categories with no ranking between them, while ordinal variables do allow the categories to be ranked, but nothing can be said about the intervals between those categories. Interval variables, on the other hand, do contain equal distances between the categories, but these don't have absolute zero points, whereas a ratio variable does (Newsom, n.d.-b). A more in-depth explanation of these levels of measurement is not relevant within the scope of this research and is therefore not provided. The respondents' characteristics, i.e. the information gathered from the general background questions, are all recoded to a nominal or ordinal scale if this had not already been done by the response options to the questions in the survey itself. For example, the questions on work experience and stage in the development process already had set response categories. Additionally, the questions on role and organization were already converted to one of the four groups to which respondents could belong (see also section 4.2). The following numbers have been attributed to those different options: 1 for developer, 2 for consulting organization, 3 for (decentralized) government, and 4 for (resident) advocacy organization. The question about the number of participatory processes in which the respondents have been involved was, like the ones about role and organization, an open-ended question to which the answers were several varying numbers, between 0 and 50. These answers are divided into the following three groups: $<$ 10 processes (1), between 10 and 20 processes (2) and 20+ processes (3). Because all variables are now of either a nominal or ordinal level, a crosstab combined with the Chi-Square test can be used to check for a relationship between each of the characteristics and the perspectives in the population.

6.1 Dependence analysis

The question that is asked in this analysis technique is "Does the distribution of variable X differ between the levels of variable Y?", or in other words, "How does variable Y affect variable X?". The answer to this question is twofold. First, it is examined whether a relationship is found within the sample, i.e. within the data obtained from the survey. Next, it is calculated whether the relationship that was found also applies to the population or whether it is due to coincidence. The non-loaders, of which there are four, are not included in this analysis, since they do not belong to any of the perspectives. The multiple-loaders, or confounding sorts, are again assigned to the perspective in which they have the highest loading, just as was done in the factor analysis. This means that the analysis is conducted with 36 cases in total.

The Chi-Square test is a test of significance that is used to determine whether the relation between two qualitative variables is statistically significant. This starts with formulating two hypotheses: the 'null hypothesis' (H_0) which boils down to there not being a relation between the variables in the population, and the 'alternative hypothesis' (H_1), stating that there is a significant relation in the population. The result of the test indicates whether the null hypothesis is true, or whether it is rejected and the alternative hypothesis is adopted instead. This test works as follows. For each combination of values

from both variables, the observed values are compared with the expected values. This is always done under the assumption that H_0 is true. The former are the amounts that resulted from the sample and the expected values delineate the anticipated values for each cell of the table in the situation where there is no relationship between the two variables. The test determines if the difference between these values is statistically significant, meaning that it is big enough to reject the null hypothesis. This is done by looking at the p-value for the statistic and comparing it with the chosen alpha level of 0,05. When the p-value is smaller than this, H_0 is rejected (Mindrila & Balentyne, n.d.). The reasoning behind this is as follows. The p-value can be seen as a measure of compatibility: how well does the data align with the null hypothesis? A large value indicates a significant level of conformity of the data with this hypothesis, therefore failing to reject it (Nowacki, 2017). In other words, this value indicates the chance of finding a certain association in the sample, when in reality (in the population) no association exists. A low value, on the other hand, indicates a low compatibility of the data with this hypothesis, therefore rejecting it and accepting the alternative hypothesis, no longer believing that the variables are independent of each other. Essentially, the test checks whether the relation found in the sample data is based on chance.

The Chi-Square test is an approximation method that gains accuracy as the amounts in the table cells increase. Hence, it's crucial to ensure that they are sufficiently large to produce a reliable p-value. Two test assumptions must be met to be able to apply the Chi-Square test: no more than 20% of the expected counts are less than five, and all expected counts themselves are one or larger (Mindrila & Balentyne, n.d.). These conditions are most likely to be satisfied when the sample size is at least five times the number of cells (so thirty in the case of a 2x3 table for example) (McHugh, 2013). When these rules about small expected frequencies are not satisfied, researchers commonly turn to Fisher's Exact Test which, contrary to other methods, also works well when the smallest expected frequency falls below one (Howell, n.d.). What this test does is adjust the Chi-Square for the accuracy problem that arises because of the low expected frequencies. Most of the currently available software specifically mentions any problems regarding the expected frequencies, thereby providing easy identification of whether or not the Chi-Square test can be used or the Fisher's exact test should be examined instead (Newsom, n.d.-a). This test was originally designed only for 2x2 tables but it can be applied to larger tables as well, as long as the calculations are not done by hand since they can become increasingly difficult and time-consuming (Bewick, Cheek, & Ball, 2003). When looking at the p-value for Fisher's exact test, this still quantifies the compatibility of the data with the null hypothesis and the hypotheses still aim to determine whether the two categorical variables are linked with each other (Nowacki, 2017).

6.1.1 Application in this research

For this analysis, the same software is used as for the factor analysis in the previous chapter (IBM SPSS Statistics (version 29.0)). In the setup for the Crosstabs analysis, the independent variable is selected for the rows and the dependent variable for the columns. For this research, the different characteristics are the independent variables, while the variable indicating the factor to which the respondent belongs is the dependent variable. The setup for the analysis further offers options that can be turned on. To obtain the numbers needed for this research, the following are checked: observed counts, expected counts, percentages for the rows, chi-square, and 'exact' (keeping the standard 'time limit per test' that appears, which is five minutes). The tables that were obtained from this analysis for the different characteristics can be found in appendix F.

The following sections first describe the characteristics' distribution among the perspectives and any observed relation with them within this research. So this is done based on the observed values from the analysis, which are clearly shown in the charts in this chapter. For every characteristic, the left figure contains the absolute numbers (as a proportion of the total number of respondents in the sample), and the right figure shows the percentages as part of the respective group within the characteristic. The reason for showing both of these figures is because they provide two different insights: the left shows "perspective X consists mainly of respondents from group Y," while the right shows "most of group Y has perspective X". After this description of the sample, the analysis technique described above is used to see if this relation can be generalized to the population. The following steps are followed for this:

1. Establish a null hypothesis and an alternative hypothesis.
2. Check the test assumptions for the Chi-Square test: (1) $<$ 20% of expected values $<$ 5 & all expected values $>$ 1.
   > If these are both met, the Chi-Square test will be considered.
   > If they are not both met, Fisher's exact test will be considered.
3. Check the applied test for the significance requirement: p $<$ 0,05.
   > If this is true the null hypothesis is rejected, and the alternative hypothesis is accepted.
   > If this is not true the null hypothesis is accepted.

6.2 Group

What stands out in figure 6.1 is that perspective 3 consists mainly of '(decentralized) government': six of the eight respondents with that perspective belong to this group. This is also a large proportion of that group itself: it's 60% of the total number of public servants in the sample. This observed relation is logical when considering the idea behind the EPA regarding participation: the legislator aimed to provide freedom to carry out local customization. It is therefore plausible that public servants themselves adhere more to perspective 3 since that places importance on having a well-organized tailor-made process where organizers know the local situation. One might have expected advocates to find trust and influence important aspects and thus expected them to generally hold perspective 1 more than the other groups, but that is not an apparent relation in this sample. However, while such a statement comparing it with the other groups cannot be made, it can be seen that when considering only the advocates themselves, it is the case that more of them fall into perspective 1.

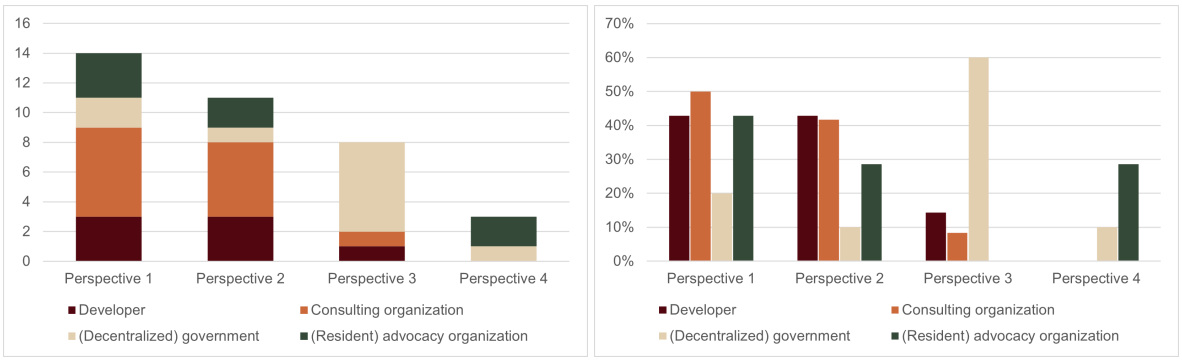

Figure 6.1: Distribution of the groups over the perspectives

To determine whether this relation can also be generalized to the population, the crosstab is examined. The null hypothesis states, "group and perspective are independent in the population" (H_0), while the alternative hypothesis states, "group and perspective are dependent in the population" (H_1). Both test assumptions for the chi-square test are not met: 100% of the cells have an expected count less than 5, and the minimum expected count is 0,58. This means that it's not the significance of the Pearson Chi-Square value that is considered, but that of the Fisher Exact Test. This value is 0,052, thus almost meeting the significance requirement. Therefore, it's interpreted as a near-significant effect. If the sample size had been slightly larger, this effect would likely be significant. However, the limits that are set are strictly adhered to, and therefore the null hypothesis cannot be rejected within this research, which leads to the conclusion that there is no relation between the group and the perspective someone adheres to in the population.

6.3 Work experience

What immediately stands out in figure 6.2 is that more than 50% of the respondents with over twenty years of work experience hold the second perspective. This perspective also contains the most respondents from that category in absolute numbers: eight of the eleven respondents with that perspective belong to this category. What can be learned from this observed relation is that attention should be paid to creating a clearly defined process and following this properly when dealing with someone who has many years of working experience. On the other hand, the absolute numbers show that perspective

3 is a balanced mix of all categories of work experience, and perspective 1 contains higher percentages of the groups with fewer years of work experience. One could say that these two relations in combination with the first one could indicate a shift in mindset once someone gets more years of work experience: from a focus on having influence (p1) to a focus on the organization of the process with sought-after satisfaction through customization (p3) and finally a shift to an even more objective focus on the process' organization (p2).

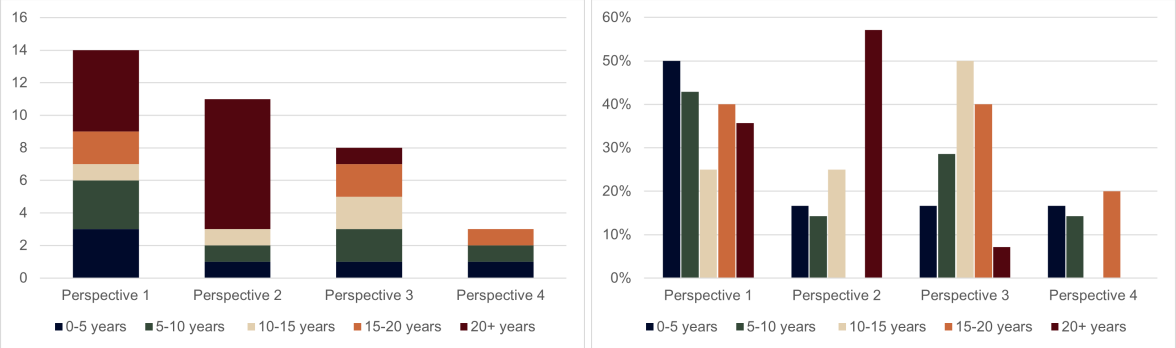

Figure 6.2: Distribution of the work experience over the perspectives

To determine whether this relation can also be generalized to the population, the crosstab is examined. The null hypothesis states, "work experience and perspective are independent in the population" (H_0), while the alternative hypothesis states, "work experience and perspective are dependent in the population" (H_1). Both test assumptions for the chi-square test are not met: 95% of the cells have an expected count less than 5, and the minimum expected count is 0,33. This means that it's not the significance of the Pearson Chi-Square value that is considered, but that of the Fisher Exact Test. This value is 0,240, thus not meeting the significance requirement. Therefore, the null hypothesis cannot be rejected, which leads to the conclusion that there is no relation between work experience and the perspective someone adheres to in the population.

6.4 Development process phase

There is not much that stands out when looking at figure 6.3. Perspective 2 might contain 100% of the respondents that are involved until the definition phase, but when looking at the absolute numbers it can be seen that this category consists only of one respondent, so this is not a notable outlier. The distribution of categories across the perspectives is fairly proportional: perspective 1 contains around 40% of respondents from each category of which it consists, perspective 2 contains around 30% of each category (apart from the aforementioned outlier), as does perspective 3, and perspective 4 has around 10% from the two categories of which it consists. Thus, apart from the fourth perspective, each category is pretty evenly represented across the perspectives. This shows that someone's view on what aspects are important for organizing a participation process isn't dependent on how far into the development process they are involved. One can go even further and say that contrary to the previous characteristic, someone's view will thus likely stay the same throughout the different phases of the development process.

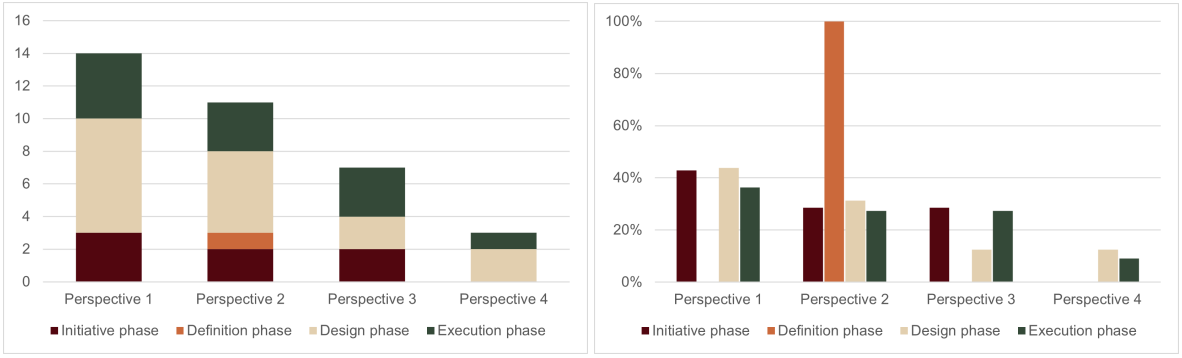

Figure 6.3: Distribution of the involvement in development phases over the perspectives

To determine whether this relation can also be generalized to the population, the crosstab is examined. The null hypothesis states, ”involvement in a phase in the development process and perspective are independent in the population” (H_0), while the alternative hypothesis states, ”involvement in a phase in the development process and perspective are dependent in the population” (H_1). Both test assumptions for the chi-square test are not met: 87,5% of the cells have an expected count less than 5, and the minimum expected count is 0,08. This means that it's not the significance of the Pearson Chi-Square value that is considered, but that of the Fisher Exact Test. This value is 0,988, thus not meeting the significance requirement. Therefore, the null hypothesis cannot be rejected, which leads to the conclusion that there is no relation between the involvement in a phase in the development process and the perspective someone adheres to in the population.

6.5 Experience with participation processes

Figure 6.4 shows that the respondents who have experience with more than twenty processes are evenly distributed among the perspectives. Additionally, perspective 2 consists mainly of respondents who have experience with less than ten processes: eight of the eleven respondents with that perspective belong to this category. This shows that when someone has experienced less participation processes, they focus more on the organization of the process and this being clear and professional than someone with experience in more processes does. This observed relation is plausible as someone with less experience generally (in any activity) clings more to manuals or guidelines since they can't draw from their personal experience as much. At the same time, however, there is also a large chunk of this category that holds perspective 1, just not with such a big difference percentage-wise with the other categories. This could perhaps be explained by the assumption that people with less experience are more 'innocent' and truly have the intention for the participation to result in influence on the design, which are two important pillars in that perspective. What these two perspectives have in common is the value they place on transparency, so that aspect could be the connecting factor for the high percentages of the category with the least experience in these two perspectives.

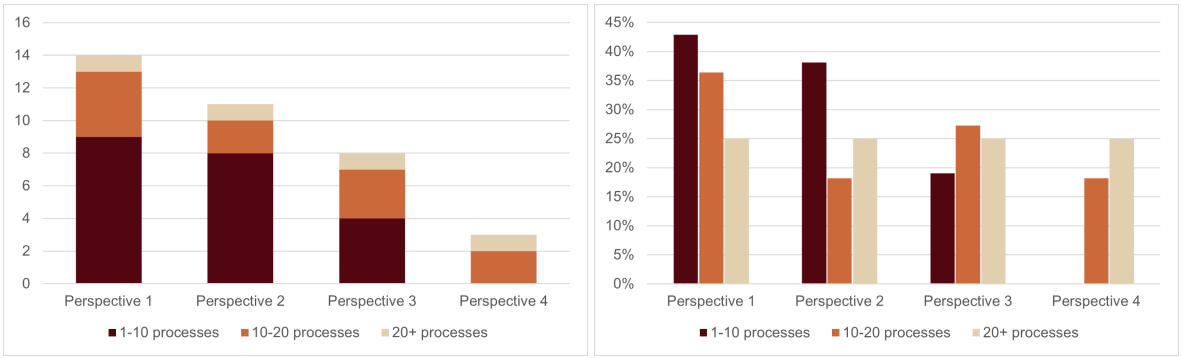

Figure 6.4: Distribution of the experience with participation processes over the perspectives

To determine whether this relation can also be generalized to the population, the crosstab is examined.

The null hypothesis states, ”experience with participation processes and perspective are independent in the population” (H_0), while the alternative hypothesis states, ”experience with participation processes and perspective are dependent in the population” (H_1). Both test assumptions for the chi-square test are not met: 83,3% of the cells have an expected count less than 5, and the minimum expected count is 0,33. This means that it’s not the significance of the Pearson Chi-Square value that is considered, but that of the Fisher Exact Test. This value is 0,326, thus not meeting the significance requirement. Therefore, the null hypothesis cannot be rejected, which leads to the conclusion that there is no relation between the amount of experience with participation processes and the perspective someone adheres to in the population.

7 Conclusion

This research aimed to gain insight into what constitutes a good public participation process for real estate construction projects in residential areas. Specifically, the goal was to determine if and how stakeholders characterize a good participation process differently, thereby indirectly defining what constitutes a good public participation process. The following main research question was the focus of this study: *What perspectives exist on what constitutes a good public participation process for real estate construction projects in residential areas and what characterizes the stakeholders within these perspectives?*. To help construct an answer to this question, three sub-questions were established. Every chapter of this report contributed information that helped answer these questions, which is consolidated in this final chapter. The first section will answer the sub-questions to provide a more comprehensive explanation and support for the main conclusion, given in the second section.

7.1 The sub-questions

The first sub-question, *what does participation in urban development projects entail?*, provides background information on the context in which this research was conducted. Participation is an important element of the EPA, which is described as '*early involvement of stakeholders [...] in the decision-making process of a project or activity*'. When applying for an environmental permit, the initiator must indicate whether participation has been organized and if so, describe how this was done and what the results were. There is not a detailed prescribed way in the legislation on the method of such participation. Consequentially, there is no definition of when organized participation is sufficient and thus what constitutes a 'good' process. It's the general consensus that all parties involved in public participation share the same principles on this, but that might not be the case. The answer to the second sub-question, *what are aspects of successful participation in a construction project?*, is based on a literature review. Existing literature was examined for aspects of successful participation. This resulted in a collection of 490 aspects, which was reduced in cycles and through interviews with participation advisors to a manageable 41 aspects, divided over fourteen categories. These are thus considered to be the most important aspects of successful participation in construction projects.

Next, Q-methodology was used to examine if different views are present among stakeholders on what constitutes a good process and what these are. Data for this was collected through a survey, in which the aspects identified in the previous sub-question were incorporated as statements. The respondents of this survey were asked to rank those statements on a fixed grid ranging from 'most important for good participation' to 'least important for good participation'. Because a forced layout was used, the respondents had to consider all statements in the context of the others which means they are arranged relative to each other. By doing this, the respondents' underlying points of view can be obtained. When applying factor analysis to these filled-out grids, respondents who have sorted the statements in a similar matter are grouped. People in the same group thus share the same perspective on what constitutes a good public participation process. This analysis resulted in four different perspectives, which form the first part of the answer to the main research question.

An examination was done on possible relations between the respondents' characteristics and their perspectives. With this the third sub-question, *to what extent do the perspectives correlate with the*

stakeholders' characteristics?, can be answered. For this, it was first investigated whether certain relations stood out in the sample by looking at the crosstabs of each characteristic with the perspectives. After identifying these relations in the sample, a Chi-Square test was applied to check if these could be generalized to the population. The insights resulting from this provide the second part of the answer to the main research question.

7.2 Main research outcomes

The four perspectives that were identified through the application of Q-methodology form an answer to the first part of the main research question - *what perspectives exist on what constitutes a good public participation process for real estate construction projects in residential areas*. The first perspective considers participation to be good if trust is created and the input provided actually influences the initiative. The second one has a positive opinion about participation as long as the organized process is very clear, professional, and properly followed, and results in greater support for the initiative. The third perspective believes that participation is good if the process is situation-specific, followed well and there is satisfaction with how it went down, regardless of whether it resulted in adjustments to the design of the initiative. Lastly, perspective four has a positive view of participation when the design of the initiative is changed according to the input provided by participants who were involved from the start and whose expertise is valued. These perspectives can be clustered based on their main component, with one and four assigning importance to the output and having influence, while two and three focus more on having a clear process organization and following this properly. These process-focused perspectives were largely consistent with process management literature, apart from the fact that they placed importance on having hard and clear boundary conditions while the literature specifically discourages this. The perspectives are depicted in figure 7.1, where it can be seen that they are quite different in some areas, while in others they are more similar.

Figure 7.1: Overview of the perspectives' scores on representative statements from the categories

Regarding the similarities between the perspectives, there are two aspects on which they agree that these are important for a good participation process: *providing feedback to participants* (33) and *involving the public before adopting final plans* (3). On the other hand, the perspectives collectively express that *having many participants* (8), *a time-efficient process* (20), *the use of multiple methods* (26), and *cost-effectiveness* (31) are the least important for good participation. It's also very interesting, if not

more than their similarities, to see what differentiates the perspectives. The unique aspect of perspective one is the call for a flexible and adaptable process. Perspective two underlines the importance of having an effective conflict handling strategy while perspective three values when organizers have knowledge of the local situation and can adapt to it. Furthermore, what sets the fourth perspective apart from the other three is the appreciation of leveraging participant expertise.

Concerning the group to which a respondent belongs, it was observed that civil servants (relatively speaking) adhere to perspective 3 more than the other groups. When looking at the work experience, respondents with more than twenty years of experience relatively hold perspective 2 more than the other categories. No relation stood out between the perspectives and the phase of the development process in which a respondent is involved. Lastly, for the experience with participation processes, respondents who have experience with less than ten processes relatively adhere more to perspective 2 than the other levels of experience. None of these observed relations were found to be statistically significant, meaning that they could not be generalized to the population. However, the relationship between the group and the perspectives was near-significant and would likely have been found significant had the sample size been larger. This result thus is a strong indication that there may actually be a relationship between the group to which a person belongs and the perspective that person holds. Therefore, regarding an answer to the second part of the main research question - *what characterizes the stakeholders within these perspectives* - the only conclusion that can be drawn from this research is that civil servants are likely to adhere to the third perspective and thus value a tailor-made process where the organizer has knowledge of the local situation.

This research had the objective of gaining insight into what constitutes a good public participation process for real estate construction projects in residential areas. The goal was to determine if and how stakeholders characterize a good participation process differently. Previous studies assumed that all parties involved in a process consider the same principles important for defining good public participation processes. This research sought to make a scientific contribution to the existing literature by examining whether that is in fact the case. This study additionally wanted to go further by exploring whether relationships could then be indicated between certain characteristics of individuals and their perspectives. From the outcomes of the research, as described previously, it can be concluded that this research has indeed led to new insights in this field and thus has fulfilled its scientific aspirations. In addition, this research had the practical aim of providing support to initiators for the setup of participation by identifying which aspects to consider when dealing with different parties in designing that process for a project. It's believed that this objective was also achieved with the research outcomes, specifically through the practical recommendations made previously.

8

Discussion

8.1 Limitations of the research

Some limitations should be acknowledged, resulting from the choices that were made in this research. Understanding these limitations is important for a nuanced interpretation of the research outcomes and they also provide input for future studies.

Methodological

Three limitations arise concerning the methodology that was used: following instructions, the starting sentence, and the type of aspects. Firstly, respondents may have applied the method of operation that was provided to them differently. The survey contained instructions for the respondents to follow when placing the statements on the Q-grid. This consisted of quite some text, which possibly means that some respondents did not thoroughly read through it. If they then did not follow these instructions, the set-up of their grid may have been compiled differently than it would have been if the instructions had been followed. This means that there is a risk that some of the Q-sorts are not the best reflection of that respondent's view. The reason that this is considered a limitation is because the survey in this research was conducted online, thus no additional clarifications could be given to the participants other than the informative text provided.

Secondly, the starting sentence may have been ambiguous. From the reasoning provided by the respondents in the postsort of the survey, it appeared that many of them considered some of the statements from a different angle than what was intended. Even though the starting sentence that was provided to them was 'Important for a good participation process is...', the explanations showed that they interpreted this more as 'Should this be a goal of the process or not' for certain statements. This is a small nuance difference, but it could have led to respondents possibly providing more socially accepted answers instead of their true opinion, leading to a different arrangement of some of the Q-sorts, and thereby impacting the results of the analysis.

Additionally, two of the aspects used in this research were of a different type than the rest. The majority of the aspects had a causal relationship with a participation process being considered 'good', meaning it can be stated that having those present results in a good participation process. However, this statement cannot be made for two of them because they are retrospective value judgments. The aspects referred to here are numbers 40 and 41: 'the process results in public satisfaction with both the process itself and being informed' and 'the process results in low resistance to the initiative'. Even though these are of a different type, it does still hold that for all aspects one can say 'perspective X believes a participation process to be good if ...'. So, the use of different types isn't wrong in itself. It mainly affects the recommendations, because since it's not true that all aspects 'lead to' good participation, it cannot be said for all of them that they have to be 'done' or 'applied' to achieve good participation.

Study scope demarcation

For the scope of the study, the limitations can be categorized into two aspects: the nature of organizing participation and the location. Firstly, the research did not differentiate between the different natures of organizing participation for an initiative. As was explained, generally, there is no obligation to set up

participation. The application for a permit simply has to indicate whether or not it has been organized. This means that in such cases when participation is set up, it is done so voluntarily. An exception exists for BOPAs, where participation can be made mandatory by the Municipal Council. A possible difference between these situations has not been taken into account in this research.

Furthermore, the research did not intentionally look at a specific location or region. It could be the case that views on what constitutes 'good' participation differ between regions, for example between the Western and Northern parts of the Netherlands. Since that was not considered in this research, the results apply to the 'general situation' in the Netherlands. That means that views in practice may deviate a bit from this depending on the location.

Sample size for the Chi-square test
Because the number of respondents necessary for a Q-study is not very large but it simply requires all relevant participants to be represented, the sample size for this research consisted of just 40 respondents. In terms of numbers, this was thus enough for the Q-methodology part of the research. However, for the Chi-Square test executed for the relation between the respondents' characteristics and the perspectives, this sample size was likely too small. This is concluded based on the fact that none of the results in those tests came up as statistically significant, meaning that any observed relations in the sample could not be generalized to the population.

8.2 Validity of the research

There are two kinds of validity to be observed: internal and external validity. Internal validity is specifically about causality, which does not apply to this research. External validity concerns the generalization of the results to the population. Previously it was pointed out that one of the criticisms of Q-studies in general has to do with their perceived limited possibility for generalization. This means that, in general, the results of such studies don't have the highest external validity. However, since this assumption has also been contradicted by other research, this risk is estimated at a minimum. On the other hand, there is a lower external validity for the analyzed dependencies, since those results were not found to be statistically significant. Since the cause for this was most likely the smaller sample size, which was previously mentioned as a limitation, the external validity of this part of the research might have been higher with a larger sample size.

8.3 Recommendations

8.3.1 Recommendations for future research

The result of this thesis provides a basis for organizing participation and gaining knowledge on the different views that exist on what constitutes good public participation. However, this study is only a first step in a research area that has just opened up with EPA coming into effect. Further research on the topic of this study can be undertaken, for which some recommendations are provided here. These stem from the previously listed limitations of this research.

- Based on the limitation of the nature of organizing participation, it is recommended to further research whether views on 'good' participation differ between obligatory and non-obligatory processes. This can be done in one of two ways: either the research only focuses on one of these types (through the selection of the P-set) and draws a conclusion about that type, or research is set up in which both of these types are investigated through separate surveys so they can be compared in the conclusion.
- Based on the limitation of the location, it is recommended for further research on this subject to look into the views in different regions. This can again be done in two ways: the focus of the research is on one specific location and draws a conclusion about that region, or it is set up in such a way that multiple surveys are conducted, each in a different region, in which case a comparison between them can be made.
- Based on the limitation of the small sample size for the Chi-Square test, it is recommended to further research a difference in views between people with different categories of characteristics. For this, it's important to gather a larger sample size than was used in this research. Since

this research showed that one of the characteristics had a near-significant relation with the perspectives, which was the group to which someone belonged, it is recommended to observe that characteristic specifically.

In addition to these subject-specific recommendations, two general recommendations can be made for future research that applies Q-methodology.

- Based on the limitation of a possible ambiguous starting sentence it is recommended to formulate the starting sentence from a personal perspective & make the statements fit accordingly. For this study, this could mean something along the lines of 'I think a participation process is 'good' if...' for example (Dutch: 'ik vind dat een participatieproces 'goed' is als...). This could possibly help ensure that respondents give their true opinion on the subject instead of giving socially accepted answers.
- Based on the limitation of the different types of aspects used it is recommended to use items of the same type for the Q-set, to enable a uniform formulation of the conclusions and recommendations drawn from it. This is mostly expected to facilitate the formulation of advice on what can be done with the results from the Q-study.

8.3.2 Recommendations for practice

This research has revealed that parties involved in a public participation process may hold different views on which principles are important to consider such a process as 'good'. It was already known that there is no 'one size fits all' approach for participation processes, which is why it wasn't further defined in legislation in the first place to enable local customization. By understanding these different views, a recommendation can be made to project initiators on how to best set up participation processes for real estate construction projects in residential areas. This recommendation is as follows.

To set up a participation process for an initiative that is as 'good' as possible, important aspects of all four perspectives should be incorporated. This way, all different mindsets that may be present are satisfied, leading to a consensus of it being a 'good' public participation process. That is not to say that all the top aspects from each of the perspectives should be included. It's thought to be enough to include some of them since the rationale behind a perspective is not 'all of these aspects should be present, otherwise, it's not considered good' but simply 'each of these aspects individually contributes to the process being considered good'. It might prove difficult for an initiator to implement this recommendation immediately for their next initiative since each perspective has various top aspects, which all vary in ease of implementation. Therefore, a starting point could be to incorporate those aspects that are considered important by several of them, killing two birds with one stone. Once the effectiveness of this is known, other individual aspects from each perspective can be included in a future initiative. To aid initiators in following this recommendation a one-pager has been drafted, provided separately from this document, which contains an overview of the important aspects of each of the perspectives. With the examination of possible relationships between the perspectives and certain characteristics of people, this research aspired to help project initiators even further in setting up a public participation process. If there was indeed a relationship, then initiators could take into consideration what perspective a person is likely to have if they know what type of person they are dealing with. This means that they could be aware of which aspects that person values in a participation process, and ensure that these are incorporated. The one relationship of the perspectives that was found to be near-significant was with the group to which a person belongs. Based on this it can be recommended that, when dealing with a civil servant, it would pay off to obtain knowledge of the local situation and create a truly tailor-made process.

The provided recommendation is for initiators. They are responsible for organizing the participation for their projects, which is the type of participation that this research focused on: privately organized participation. However, municipalities can provide guidelines to them on how to set this up, with which they get ahead of the previous recommendation. In the context of these guidelines, a recommendation can also be made to those municipalities. They are advised to incorporate the results from this research - both the insight that there are four different views on the matter and the important aspects of each of those - in their guidelines as suggestions to initiators. This way, the information regarding important aspects is equally available to all project initiators, and these initiators will probably feel more supported by the municipality.

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A

Survey

Here, the contents of the survey are provided in the way they were presented to the respondents. Since specific online software was used to create this survey, an exact replica of it is not given in the sense of how it was visually formatted, but these were the exact texts used in each of the steps of the survey. Since the survey was in Dutch, the statements also had to be translated into Dutch before they could be incorporated. These translations can be found in table A.1.

Openingsverklaring

U bent uitgenodigd om deel te nemen aan een Masteronderzoek naar participatie in de omgevingswet. Dit onderzoek wordt uitgevoerd door A.J. (Annelotte) Kalb, student aan de TU Delft, in samenwerking met Drees & Sommer als stageverlener.

Het doel van dit onderzoek is bepalen wat 'goede participatie' inhoudt onder de omgevingswet door het in kaart brengen van perspectieven onder professionals op dit onderwerp. De gegevens zullen worden gebruikt om een leidraad te creëren voor de opzet van participatie, te gebruiken door projectinitiatiefnemers bij het ontwerpen en uitvoeren van een participatietraject voor een project onder de omgevingswet.

Zoals bij elke online activiteit is het risico van een inbreuk altijd mogelijk. Uw antwoorden in dit onderzoek zullen naar het beste vermogen vertrouwelijk blijven. Potentiële risico's worden geminimaliseerd door geen IP-adressen te verzamelen en zo min mogelijk persoonlijke gegevens uit te vragen. Alle verzamelde gegevens worden veilig opgeslagen in een speciale Project Data Storage map voor dit project, die zich bevindt op een netwerkschijf met een back-up van TU Delft ICT. Vertrouwelijkheid wordt gewaarborgd door alleen de hoofdonderzoeker toegang te geven tot deze map. Het onderzoeksrapport wordt na voltooiing gepubliceerd op de TU Delft Repository, zonder ruwe persoonsgegevens. Alle persoonsgegevens die zijn opgeslagen op de Project Storage Drive worden na afloop van het onderzoeksproject vernietigd.

Uw deelname aan dit onderzoek is geheel vrijwillig en u kunt zich te allen tijde terugtrekken.
Mocht u zorgen hebben, dan kunt u contact opnemen met de onderzoeksbegeleider: M. Kroesen

Door verder te gaan naar het volgende deel van deze enquête gaat u akkoord met deze openingsverklaring.

Bedankt voor uw hulp bij dit onderzoek.

Stap 1 van 4 - Voorsortering

Lees de volgende stellingen zorgvuldig met daarbij de volgende vraag in gedachten: *Belangrijk voor een goed participatieproces is....*

Verdeel de stellingen zo over 3 groepen: een groep met stellingen die u het **meest belangrijk** acht om iets een goed participatieproces te noemen, een groep met stellingen die u hiervoor het **minst belangrijk** acht en een groep met stellingen waar u **geen uitgesproken mening** over heeft.

Toelichting op begrippen die worden gebruikt in de stellingen:
> 'Proces': het participatieproces.
> 'Initiatief': het project waarvoor de participatie wordt ondernomen.

Het verplaatsen van de stellingen kunt u doen door op de stelling te klikken en deze met uw muis naar de juiste kolom te slepen, om hem daar vervolgens los te laten.

U kunt later nog aanpassingen maken in deze verdeling.

Als u deze instructies nog een keer wil lezen, klik dan op de **Help-knop** onderaan het scherm.

Stap 2 van 4 - Sortering

Prioriteer de voorsortering die u in de vorige stap heeft gemaakt door de stellingen uit die 3 groepen te sorteren in het raster. Houd daarbij nog steeds dezelfde vraag in gedachten: *Belangrijk voor een goed participatieproces is....* Stellingen die u het meest belangrijk vindt om iets een goed participatieproces te noemen, zet u helemaal rechts in het raster en stellingen die u hiervoor het minst belangrijk vindt, zet u helemaal links.

Volgt u de volgende werkwijze om het indelen te vergemakkelijken:

1. Beschouw de stellingen die u in de groep 'meest belangrijk' heeft geplaatst (deze hebben een groene box). Kies daaruit de 2 stellingen die u het meest belangrijk vindt en plaats deze in de kolom '+4'.
2. Kies uit de overgebleven stellingen in deze groep vervolgens de 3 stellingen die u daarna het meest belangrijk vindt en plaats deze in de kolom '+3'.
3. Herhaal dit proces totdat alle stellingen uit deze eerste groep in het raster zijn geplaatst.
4. Herhaal deze drie stappen vervolgens voor de groep 'minst belangrijk' (deze hebben een rode box), beginnend bij de '-4' kant van het raster.
5. Neem als laatste de groep 'neutraal' (deze hebben een grijze box) en plaats deze stellingen in de overgebleven plekken binnen het raster.

Het verplaatsen van de stellingen doet u op dezelfde manier als in de vorige stap: u klikt op de stelling en sleept deze met uw muis naar de juiste kolom, om hem daar vervolgens los te laten.

Enkele belangrijke opmerkingen:
> De verticale oriëntatie van de stellingen binnen een kolom is niet van belang!
> Het aantal stellingen dat in iedere kolom kan worden geplaatst, is gelimiteerd - als deze limiet wordt overschreden, kleurt de betreffende kolom geel en dient u een stelling naar een andere kolom te verplaatsen. De limieten zijn als volgt: 2 stellingen in de kolommen '+4'/'-4', 3 stellingen in de kolommen '+3'/'-3', 5 in de kolommen '+2'/'-2', 6 in '+1'/'-1' en 9 stellingen in kolom '0'.
> Door deze vaste indeling van het raster kan het zo zijn dat u stellingen uit uw 'neutraal'-groep in een andere kolom dan de '0'-kolom moet plaatsen. Als dit het geval is, maak dan een bewuste afweging voor deze onderverdeling. Hetzelfde geldt voor het geval dat u stellingen die u in de voorsortering als 'minst of meest belangrijk' had beoordeeld in de '0'-kolom moet plaatsen.
> U kunt de knoppen onderaan het scherm gebruiken om de tekstgrootte of boxhoogte aan te passen.

Als u deze instructies nog een keer wil lezen, klik dan op de **Help-knop** onderaan het scherm.

Stap 3 van 4 - Toelichting

Beschrijf alstublieft voor de stellingen die u in de kolommen '+4' en '-4' heeft geplaatst wat uw redenering was achter deze plaatsing in het raster.

Stap 4 van 4 - Vragenlijst

Tot slot wil ik u verzoeken de volgende vragen te beantwoorden over uw achtergrond.

- Voor welke organisatie bent u werkzaam?
  Bedrijfsnaam, bij voorkeur inclusief afdeling

- Wat is uw functie binen deze organisatie?
  Functietitel, eventueel met korte omschrijving

- Hoeveel jaar relevante werkervaring heeft u in de bouwindustrie?
  1. 0-5 jaar
  2. 5-10 jaar
  3. 10-15 jaar
  4. 15-20 jaar
  5. 20+ jaar

- Tot hoe ver in het ontwikkelproces bent u meestal betrokken bij een project?
  1. Initiatieffase
  2. Definitiefase
  3. Ontwerpfase
  4. Uitvoeringsfase

- Bij hoeveel participatieprocessen van projecten in woonwijken bent u betrokken geweest in uw functie?
  Dit hoeft niet het exact kloppende aantal te zijn, een ruwe inschatting is voldoende (antwoordformat: alleen getallen)

Table A.1: Q-set Dutch translations

Nr.	Statement (English)	Statement (Dutch)
	Early involvement	
1	The public shall be involved as early as possible.	Het publiek wordt in een zo vroeg mogelijk stadium betrokken.
2	The public is not involved once, but on multiple occasions.	Het publiek wordt niet eenmalig betrokken, maar op meerdere momenten.
3	The public is involved before final plans are adopted.	Het publiek wordt betrokken voordat definitieve plannen zijn aangenomen.
	Participant selection	
4	The composition of the group of participants in the process is representative of the stakeholders of the initiative.	De samenstelling van de groep deelnemers aan het proces is representatief voor de stakeholders van het initiatief.
5	The process is open to participation by anyone who thinks they will be affected by or has ideas about the initiative.	Het proces staat open voor deelname van iedereen die door het initiatief denkt te worden beïnvloed of er ideeën over heeft.
6	Identifying and creating an overview of the initiative's stakeholders.	Het identificeren en creëren van een overzicht van de stakeholders van het initiatief.
7	Gathering information about the stakeholders - such as influence, perceptions, roles, interests, etc.	Het verzamelen van informatie over de stakeholders - zoals invloed, percepties, rollen, belangen, etc.
8	Having many people participate in the process.	Er nemen veel mensen deel aan het proces.
9	No requirement of specific skills or high level of prior knowledge of participants.	Geen vereiste van specifieke vaardigheden of een hoge mate van voorkennis van de deelnemers.
10	Leveraging any expertise of participants.	Het benutten van eventuele deskundigheid van deelnemers.
	Transparency	
11	Transparency of the process - such as on progress, dilemmas and trade-offs.	Transparantie van het proces – zoals over de voortgang, dilemma's en afwegingen.
	Communicating information	
12	All necessary information about both the process and the initiative itself will be made available to the public.	Alle benodigde informatie over zowel het proces als het initiatief zelf wordt openbaar gemaakt voor het publiek.
13	Participation organizers have knowledge of the local situation, such as language level or culture, and the ability to adapt to it.	De organisatoren van de participatie hebben kennis van de lokale situatie, zoals het taalniveau of de cultuur, en het vermogen om zich daaraan te kunnen aanpassen.
14	Information about both the process and the initiative itself is made understandable to the public.	De informatie over zowel het proces als het initiatief zelf wordt begrijpelijk gemaakt voor het publiek.
15	Using a variety of ways to make information about both the process and the initiative itself public.	Het gebruik van diverse manieren om informatie over zowel het proces als het initiatief zelf openbaar te maken.
16	Continuously and clearly announcing participation opportunities and how the public can participate in them.	Continu en op een duidelijke manier bekendmaken welke participatiemogelijkheden er zijn en hoe het publiek daaraan kan deelnemen.
17	Effective communication and information exchange between all parties involved in the process.	Effectieve communicatie en informatie-uitwisseling tussen alle betrokken partijen in het proces.
	Supervising party	
18	The process is led by mediators experienced in mediating participation.	Het proces wordt geleid door bemiddelaars die ervaren zijn in het bemiddelen van participatie.
19	The process is organized and led by an independent, unbiased mediator.	Het proces wordt georganiseerd en geleid door een onafhankelijke, onbevooroordeelde bemiddelaar.
	Accessibility	
20	The process is time-efficient for participants.	Het proces is tijdsefficiënt voor de deelnemers.
21	The activities in the process take place at convenient and accessible dates and times.	De activiteiten in het proces vinden plaats op geschikte en toegankelijke data en tijden.
22	The activities in the process take place in attractive and convenient locations.	De activiteiten in het proces vinden plaats op aantrekkelijke en comfortabele locaties.
	Influence	
23	The output of participation actually influences the design of the initiative.	De output van de participatie is daadwerkelijk van invloed op het ontwerp van het initiatief.

Continued on next page

Table A.1: continued from previous page

Nr.	Statement (English)	Statement (Dutch)
24	Participant expectations are managed by formulating hard and clear boundary conditions within which participation takes place.	Verwachtingen van deelnemers worden gemanaged door het formuleren van harde en duidelijke randvoorwaarden waarbinnen de participatie plaatsvindt.
	Definition	
25	There is a clearly defined purpose for organizing participation.	Er is een duidelijk omschreven doel voor het organiseren van de participatie.
	Design	
26	Not one participation method is used, but several.	Er wordt niet één participatiemethode gebruikt, maar meerdere.
27	The participation method is situation-specific and chosen based on the intended context and purpose.	De participatiemethode is situatie-specifiek en is gekozen op basis van de beoogde context en het doel.
28	The structure of the process is made as clear as possible to all participants in advance.	De structuur van het proces wordt vooraf zo duidelijk mogelijk gemaakt voor alle deelnemers.
29	There is a written participation plan, which among other things clarifies the nature and scope of participation, and participation report.	Er is een schriftelijk participatieplan, die o.a. de aard en omvang van de participatie verduidelijkt, en participatieverslag.
	Resources	
30	Sufficient time is allocated for the process.	Er wordt voldoende tijd uitgetrokken voor het proces.
31	The process is cost-effective.	Het proces is kosteneffectief.
32	Support for / confidence in the process from the initiator himself.	Steun voor / vertrouwen in het proces vanuit de initiatiefnemer zelf.
	Feedback	
33	Providing feedback to participants on how their input was considered and what changes were made because of their involvement.	Het geven van feedback aan deelnemers over hoe hun inbreng is overwogen en welke veranderingen zijn aangebracht vanwege hun betrokkenheid.
34	Gauging participants' satisfaction with the process, both during the process and afterwards.	De tevredenheid van de deelnemers over het proces wordt gepeild, zowel tijdens het proces als achteraf.
35	The process is flexible and can be modified while it is underway.	Het proces is flexibel en kan worden aangepast terwijl het aan de gang is.
36	Providing timely responses to public opinions and questions.	Het verstrekken van tijdige reacties op publieke opinies en vragen.
	Conditions of cooperation	
37	Building and ensuring both the trust of participants in the process and mutual trust and respect between participants.	Het opbouwen en waarborgen van zowel het vertrouwen van de deelnemers in het proces als wederzijds vertrouwen en respect tussen de deelnemers.
38	All participants are treated equally.	Alle deelnemers worden gelijk behandeld.
	Conflicts	
39	The presence of an effective conflict handling strategy.	De aanwezigheid van een effectieve strategie om conflicten te hanteren.
	Outcome	
40	The process results in public satisfaction with both the process itself and being informed.	Het proces resulteert in tevredenheid van het publiek over zowel het proces zelf als over het feit dat het is geïnformeerd.
41	The process results in low resistance to the initiative.	Het proces resulteert in een lage weerstand tegen het initiatief.

B

Q-sorts as completed by the respondents

The completed Q-sorts of all respondents are provided in table B.1. For each respondent, it's indicated in which valued column of the Q-grid they placed each statement. Additionally, some statistics from these findings are given in B.1. These pertain to the individual statements instead of the respondents.

Table B.1: Completed Q-sorts of all respondents

Respondent	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5	Statement 6	Statement 7	Statement 8	Statement 9	Statement 10	Statement 11	Statement 12	Statement 13	Statement 14	Statement 15	Statement 16	Statement 17	Statement 18	Statement 19	Statement 20	Statement 21	Statement 22	Statement 23	Statement 24	Statement 25	Statement 26	Statement 27	Statement 28	Statement 29	Statement 30	Statement 31	Statement 32	Statement 33	Statement 34	Statement 35	Statement 36	Statement 37	Statement 38	Statement 39	Statement 40	Statement 41
1	-2	-1	3	1	1	-2	-2	-1	0	-2	2	0	0	1	-1	1	-1	-1	1	-3	0	-3	4	1	2	-3	2	0	-4	0	-4	0	3	2	-2	0	3	4	2	-1	0
2	-2	-3	3	2	2	-1	0	-3	-1	-2	1	2	0	1	0	0	2	-1	0	-2	-1	0	-1	1	4	-4	3	1	2	-1	0	-2	3	-2	0	1	-3	4	1	0	-4
3	-3	-2	4	0	-3	-1	-2	-3	-4	-1	-2	0	1	0	1	2	2	3	3	0	0	-2	4	1	1	-4	2	0	2	1	-2	0	2	1	-1	0	-1	0	-1	3	-1
4	-2	0	4	-1	3	-1	-1	-3	0	-4	1	0	0	3	2	0	3	-3	-4	1	0	0	-1	2	1	0	4	2	-2	1	-3	1	2	-1	2	1	0	-2	-2	-1	-2
5	0	1	2	0	-1	2	0	-4	-1	1	2	1	1	0	-2	1	0	0	-1	-2	-3	-2	4	-4	-1	-3	-2	1	-1	0	-2	4	3	-1	0	3	3	0	-3	2	2
6	2	0	2	-3	0	0	-2	1	2	1	0	2	-1	3	-1	3	-3	-1	-2	-3	-2	0	2	0	-1	0	0	3	1	1	-4	-1	4	1	-2	0	4	-1	1	-2	-4
7	0	-1	-3	-2	-1	0	-1	-2	-4	-3	1	2	2	1	-3	1	1	-1	1	2	-2	-4	-1	3	0	-1	3	0	2	0	0	3	0	-2	0	1	0	-2	2	4	4
8	-3	2	1	4	1	0	-1	-2	0	-3	2	-3	1	0	-1	3	1	-2	-2	0	0	-4	2	-1	1	-1	4	1	0	0	-4	0	3	-1	0	-1	2	3	-2	2	-2
9	2	0	0	1	0	2	-1	-3	-3	1	1	1	-2	0	0	-1	-1	1	1	-2	-2	0	-4	-2	3	2	0	3	-1	-2	2	-4	4	2	0	4	0	3	-2	-2	0	-3
10	4	3	3	1	0	-3	-2	1	-4	-2	2	1	0	0	-2	1	-1	-3	0	-1	-1	-1	4	2	2	-3	0	0	1	1	0	-4	-2	0	-1	-2	3	2	0	-1	2
11	4	2	3	-1	1	-4	-2	-1	-2	-1	0	0	-3	2	0	1	0	2	1	1	0	-3	0	1	4	0	0	0	2	3	-2	1	3	-4	-2	-3	-1	-1	2	-2	-1
12	-1	-2	1	2	-2	2	2	-3	-3	1	0	2	3	0	-1	0	3	3	4	-2	-2	-2	0	0	1	-4	1	0	0	-1	-4	-1	1	0	1	0	4	-3	2	-1	-1
13	1	-1	4	0	-1	-1	0	-2	-3	2	3	1	-2	1	-3	0	-1	1	0	3	0	-1	3	1	2	-4	-2	0	2	-2	-4	0	4	0	0	2	1	-1	-2	2	-3
14	3	-3	0	0	0	0	2	-1	1	0	2	-1	0	2	1	-3	3	-2	0	-2	-1	-4	1	-1	4	-4	2	4	1	0	-3	2	-2	0	-1	1	3	1	-2	-1	-2
15	0	-2	3	1	-4	3	-1	-2	-1	-2	3	-1	2	-1	-2	0	0	-2	2	1	-1	-1	0	4	4	-3	0	0	2	1	-3	2	0	1	-3	1	0	2	1	0	-4
16	-1	1	0	1	-3	-1	-1	-2	-1	-2	2	1	-1	3	-2	4	0	1	2	0	2	-4	1	3	4	-2	-3	0	0	0	-4	2	1	-2	-3	0	3	0	2	0	-1
17	1	4	3	0	0	0	0	-3	-2	-1	2	1	0	0	0	-1	3	-4	-1	0	1	-2	4	2	3	-4	1	-3	1	-1	-2	-2	2	-2	-1	1	2	0	-1	2	-3
18	1	-1	3	2	1	-2	-2	-1	0	0	-1	0	0	1	0	0	2	-1	1	-3	3	-4	0	0	2	-4	0	-2	-1	-1	1	4	2	-2	-3	-3	3	1	2	4	-2
19	3	-2	4	1	4	0	1	-3	-1	0	3	0	-1	1	-1	2	1	-2	-3	-4	0	-2	2	1	2	-1	2	3	1	0	-4	0	2	0	0	0	-1	-1	-2	-2	-3
20	0	-2	0	1	-2	2	-2	-4	-1	0	3	0	0	0	-2	-3	0	2	3	-1	-1	-4	4	4	1	-3	0	1	3	-1	0	-1	2	-1	-3	1	2	2	1	-2	1
21	-2	1	-2	1	2	1	-4	-3	-2	-1	2	-1	-1	3	0	-4	0	-1	1	4	0	-3	-3	0	0	-1	1	0	-2	0	2	2	1	-2	3	0	-1	2	3	0	4
22	4	0	1	-1	1	0	-1	-3	-3	-1	0	0	3	1	-2	0	-1	-2	-2	-2	2	-2	2	1	1	-3	4	0	2	0	-4	0	2	0	-1	1	2	3	-1	3	-4
23	-1	1	4	1	1	0	-2	-4	1	-2	2	0	0	-1	0	-1	-3	0	-1	-1	-2	-3	3	1	4	-4	2	2	3	2	-2	2	1	0	-1	-2	0	0	0	3	-3
24	1	2	0	-2	3	0	0	-3	-1	2	-2	3	0	-1	1	-1	1	1	4	-2	0	-3	3	-1	2	-3	-2	1	1	0	-4	2	4	0	-2	-1	-1	2	0	0	-4
25	3	1	1	-3	-2	0	-2	-1	-3	-2	2	1	2	0	0	2	-1	-1	0	-2	0	-2	3	0	3	0	1	1	4	-1	-4	0	4	1	-3	2	0	-1	-1	2	-4
26	-1	1	3	2	-2	3	1	-3	-4	-2	3	1	0	0	-1	0	-1	1	2	-1	1	-4	-2	0	2	-3	-3	2	0	-1	-2	-1	2	0	0	1	4	-2	0	4	0
27	1	2	4	3	1	0	-1	-2	0	1	3	-1	-1	0	1	0	2	2	1	-2	0	-4	4	0	-1	-2	3	-3	-3	-2	-4	2	2	-1	0	1	0	-2	-1	0	-3
28	4	-1	1	-2	0	0	2	-4	-1	0	0	3	0	0	-2	1	2	-3	-1	0	2	-1	-1	3	1	-2	0	1	3	2	-1	-2	0	-3	-2	2	1	1	-3	4	-4
29	1	2	4	-1	3	1	0	-1	0	-2	1	0	1	0	-2	-1	0	-1	-3	-2	2	-4	2	-1	0	-3	2	-2	-2	0	-4	1	2	-1	0	0	1	3	-3	3	4
30	-1	1	3	2	-2	-1	0	-1	0	-3	2	1	-1	3	-2	1	-1	0	0	-2	0	-3	-4	4	1	-4	1	-3	2	0	0	3	2	-1	-2	1	0	2	-2	4	0
31	-2	0	-3	0	-3	2	3	-1	1	-1	0	2	2	4	-3	1	1	0	-1	-2	-1	-4	-2	4	3	-4	3	2	2	0	-2	-1	1	-2	0	0	1	0	0	1	-1
32	1	-1	2	-2	-2	-2	-1	-4	1	0	3	0	0	0	0	1	2	0	-1	-2	1	-3	2	3	1	-2	0	1	-3	2	-4	4	3	0	-1	2	4	-3	0	-1	-1
33	-1	-2	3	2	-1	0	2	-2	-4	3	2	0	-2	1	3	-1	0	1	-3	1	1	-3	4	-3	0	1	2	-1	-1	0	-4	0	2	0	-1	0	1	4	-2	0	-2
34	3	-1	-1	1	1	0	4	-3	3	-2	0	-2	2	-1	-2	-1	2	0	0	0	0	-3	4	-4	1	-3	1	-2	0	1	-4	2	-2	2	0	-1	3	1	-1	2	0
35	3	2	2	-1	-4	-2	-2	-3	-3	1	2	1	-2	-1	-1	-1	1	0	1	-2	1	-1	4	3	3	-3	0	0	0	0	-4	0	2	-1	0	1	2	-2	0	0	4
36	0	1	0	4	-4	2	-3	3	-1	0	0	-2	-1	2	1	-3	-1	2	0	-3	-1	-2	2	1	2	0	-2	1	3	0	-2	3	-4	0	1	-1	0	1	-1	-2	4
37	2	-1	4	3	-3	1	1	-4	0	-1	0	0	2	2	0	2	-1	-1	-2	-2	1	-3	-2	0	-1	-3	3	3	1	-2	-4	1	2	0	0	1	4	-2	0	-1	0
38	4	3	1	0	0	2	1	-2	1	-1	-2	-2	2	1	0	-1	0	-1	0	-3	1	-4	0	4	2	-3	0	1	-2	2	-4	3	2	-1	-2	0	3	-1	-1	0	-3
39	-2	-1	2	1	0	0	0	0	-2	1	1	-1	-3	2	-3	2	1	0	3	-2	-1	-4	4	4	-2	-1	-1	2	-2	1	-4	0	3	0	-3	0	3	2	0	1	-1
40	3	3	1	2	0	2	2	-3	-2	4	3	1	-1	-1	-3	-2	1	-2	-1	-1	1	0	4	0	0	-4	0	1	-1	0	-4	-1	2	-3	1	0	2	0	-2	0	-2

B.1 Statistics on the statements gained from the q-sorts

Table B.2 contains some data on the statements that were drawn from the respondents' completed q-sorts. It displays the highest and lowest scores awarded to each statement and the gap between those. Additionally, the average score and the scores that were most and least common are given. Any notable values within each column are indicated by a colored cell.

Table B.2: Statistics of the statements from the Q-sorts

Statement	Maximum	Minimum	Gap	Average	Most common	Least common
1	4	-3	7	0,68	1	-4
2	4	-3	7	0,15	-1	-4
3	4	-3	7	1,75	3	-4
4	4	-3	7	0,5	1	-4
5	4	-4	8	-0,38	0	4
6	3	-4	7	0,1	0	4
7	4	-4	8	-0,38	-2	-4 / -3 / 3 / 4
8	3	-4	7	-2,13	-3	2 / 4
9	3	-4	7	-1,18	-1	4
10	4	-4	8	-0,58	-2	-4 / 3 / 4
11	3	-2	5	1,23	2	-4 / -3 / 4
12	3	-3	6	0,33	0	-4 / 4
13	3	-3	6	0,05	0	-4 / 4
14	4	-1	5	0,80	0	-4 / -3 / -2
15	3	-3	6	-0,80	0	-4 / 4
16	4	-4	8	0,13	-1 / 0 / 1	-4 / -2 / 4
17	3	-3	6	0,45	-1	-4 / -2 / 4
18	3	-4	7	-0,38	-1	4
19	4	-4	8	0,08	0	-4
20	4	-4	8	-1,05	-2	-4 / 2 / 3 / 4
21	3	-3	6	-0,03	0	-4 / 4
22	0	-4	4	-2,58	-4	1 / 2 / 3 / 4
23	4	-4	8	1,43	4	-4 / -3
24	4	-4	8	1,05	0 / 1	-2
25	4	-2	6	1,50	1 / 2	-4 / -3
26	1	-4	5	-2,38	-3	2 / 3 / 4
27	4	-3	7	0,88	0	-4
28	4	-3	7	0,43	0	-4
29	4	-4	8	0,38	2	-4 / 4
30	3	-2	5	0,18	0	-4 / -3 / 4
31	2	-4	6	-2,68	-4	3 / 4
32	4	-4	8	0,80	0	-3
33	4	-4	8	1,65	2	-3 / -1
34	2	-4	6	-0,63	0	3 / 4
35	4	-3	7	-0,70	0	-4
36	3	-3	6	0,25	0	-4 / 4
37	4	-3	7	1,48	3	-4 / -2
38	4	-3	7	0,35	-2 / 0 / 2	-4
39	3	-3	6	-0,40	-2	-4 / 4
40	4	-2	6	0,73	0	-4 / -3
41	4	-4	8	-1,08	-4 / -3 / -1	3

C

Characteristics of the respondents

Here, the characteristics of the respondents are given by providing their answers to the general background questions in table C.1. The answers of all 42 respondents are included, meaning also from those who were excluded from the analysis based on the set preconditions, which are indicated by the colored rows. The statistics as given in section 4.2 were based only on the 40 respondents that were included in the analysis, not all that participated.

The numbers in the columns 'work experience' and 'development process phase' correspond to the numbering of the answer options as given in appendix A. For the former, this was as follows: 0-5 years experience (1), 5-10 years experience (2), 10-15 years experience (3), 15-20 years experience (4), and 20+ years experience (5). For the latter, the choice was between the following: initiative phase (1), definition phase (2), design phase (3), and execution phase (4). The numbers for the column 'participation processes' were filled in by the respondents themselves and are therefore not categorized.

Table C.1: Answers to the questions of all respondents

Respondent	Organization	Function	Work experience	Development process phase	Participation processes
1	Witteveen+Bos, Planstudies en procesmanagement	Projectmanager planstudies	5	3	5
2	Gemeente Rotterdam	Architectmedewerker welstand en lid projectorganisatie Architect aan Zet	2	3	4
3	Drees & Sommer	Directeur/senior projectmanager	5	4	2
4	Projectaandrijving	Eigenaar/ondernemer	3	4	10
5	Hellingstraatburen Schoutenwerf	Project 'Schoutenwerf, Muiden'	5	4	2
6	Gemeente Utrecht - Projectmanagement Ruimte	Senior Projectleider	2	4	30
7	Drees & Sommer Building Performance	Projectmanager	2	4	2
8	AM BV regio Zuidwest	Ontwikkelingsmanager	5	3	15
9	NCOD advies	adviseur	5	3	15
10	Drees & Sommer, Building Performance	Team Leader, Senior Project Manager	2	3	2
11	Amvest Development Real Estate BV, afdeling ontwikkeling	Ontwikkelingsmanager	4	1	5
12	Gemeente Apeldoorn	Communicatieadviseur	1	3	1
13	Buurtvereniging De Molenakkers	Voorzitter	5	3	2
14	DGMR Industrie, Verkeer en Milieu	Adviseur bedrijfsadvisering	4	4	10
15	DGMR Industrie Verkeer en Milieu	Adviseur gebiedsontwikkeling	3	1	15
16	COB-WEB advies	directeur adviesbureau	5	1	25
17	Gemeente, communicatie	Communicatieadviseur	1	4	3
18	Ontwikkelaar	Projectmanager	1	4	2
19	BPD Gebiedsontwikkeling	Manager communicatie	1	1	20
20	BPD Gebiedsontwikkeling BV	sr ontwikkelaar	5	3	2
21	Drees & Sommer	Projectmanager	5	3	10
22	Gemeente Delft, afdeling Programma's en Projecten	Projectleider van onder andere woningbouwprojecten	2	4	3
23	Gemeente Zoeteremeer, Projectenbureau	Gebiedsmanager Entree	5	3	15
24	Fietsersbond, afdeling Eindhoven	Ervaringsdeskundige, en belangenbehartiger fietsers en langzaam verkeer.	4	3	15
25	Bewonersorganisatie	secretaris	1	3	10
26	Bouwaccent Vastgoedontwikkeling	Ontwikkelingsmanager	5	3	10
27	Witteveen+Bos Business Unit DEX (Digital Engineering Experiences)	Business development en customer experience consultant. Ik probeer nieuwe processen en digitale middelen toe te passen in het bouwproces waar meerdere stakeholders samenkomen, waaronder participatie	2	1	5
28	Gemeente, Communicatie	Communicatie- en participatieadviseur	3	3	50
29	BPD, ontwikkeling en realisatie	Ontwikkelaar	2	3	5
30	Gemeente	projectontwikkelaar	4	1	10
31	Stadgenoot Projectontwikkeling	Ontwikkelingsmanager; verantwoordelijk voor gebiedsontwikkelingen	4	1	6
32	gemeente Apeldoorn projecten, programma's en interim management (PPIM)	projectmanager	5	4	10
33	Drees & Sommer, Building Performance	Senior project manager	1	3	1
34	Stichting Ruimte	voorzitter bestuur	1	1	7
35	VVE	bestuurder	5	2	4
36	MRP	ontwikkelaar	5	4	3
37	Witteveen+Bos, afdeling Planstudies en procesmanagement	Omgevingsmanager	2	3	3
38	Gemeente Delft, Programma's en Projecten	Manager gebiedsontwikkeling. Vanuit de gemeente verantwoordelijk voor een integrale ontwikkeling (van publieke en private ontwikkelingen) van het gebied	4	3	6
39	Witteveen+Bos, Gebiedsontwikkeling	Projectmanager en projectdirecteur van gebiedsontwikkelingsprojecten. Teamleider Integrale Planontwikkeling	5	3	6
40	Bewonersvereniging Cartesiusweg (privé) & BAM Infra Nederland, Commercial Business Development (zakelijk)	Adviseur Mobiliteit	3	4	6
41	Drees & Sommer NL afd BP	sr projectmanager	5	4	0
42	Wijkvereniging Brienenshof	Project 'De Pas'	1	1	0

D

Q-analysis factor solutions

Here, the results from the analyses with different amounts of factors are provided, for two- to seven-factor solutions.

Table D.1: Two-factor solution

Respondents	Factor 1	Factor 2
Respondent 19	,805*	,016
Respondent 22	,730*	,269
Respondent 40	,674*	,116
Respondent 17	,660*	,333
Respondent 27	,656*	,176
Respondent 8	,587*	,234
Respondent 32	,586*	,388
Respondent 33	,584*	-,034
Respondent 25	,583*	,312
Respondent 29	,571*	,156
Respondent 38	,569*	,358
Respondent 13	,568*	,385
Respondent 1	,566*	,341
Respondent 23**	,553*	,423
Respondent 6	,540*	-,055
Respondent 24	,535*	,193
Respondent 14	,524*	,248
Respondent 37	,509*	,370
Respondent 5	,499*	,255
Respondent 4	,484*	-,012
Respondent 28	,461*	,232
Respondent 34	,458*	,056
Respondent 39**	,442*	,435
Respondent 9	,396	,379
Respondent 2	,378	,274
Respondent 10	,293	,258
Respondent 16	,258	,735*
Respondent 20	,198	,680*
Respondent 7	-,166	,660*
Respondent 26	,263	,658*
Respondent 30	,158	,651
Respondent 15	,300	,612*
Respondent 31	,144	,595*
Respondent 35	,388	,526*
Respondent 12	,259	,525*
Respondent 3	,318	,522*
Respondent 18	,363	,423*
Respondent 21	-,299	,341
Respondent 36	-,183	,324
Respondent 11	,291	,313
EV	31,23	7,20
Defining sorts	13	11
Acceptable factor?	Yes	Yes

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:* **>** *factor loading > 2,58/$\sqrt{N}$;* and **>** $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 38,44%
Total number of defining sorts: 34

Table D.2: Three-factor solution

Respondents	Factor 1	Factor 2	Factor 3
Respondent 27	,735*	,096	,102
Respondent 40	,712*	,037	,159
Respondent 5	,663*	,185	-,058
Respondent 32	,623*	,320	,181
Respondent 33	,623*	-,103	,106
Respondent 1	,604*	,276	,167
Respondent 35**	,582*	,466	-,090
Respondent 39	,579*	,375	-,003
Respondent 13	,571*	,323	,228
Respondent 24	,530*	,135	,196
Respondent 29	,525*	,097	,263
Respondent 17**	,507	,276	,482
Respondent 38	,498*	,303	,335
Respondent 34	,494*	,001	,088
Respondent 6	,445*	-,106	,291
Respondent 14	,441*	,199	,321
Respondent 37	,434	,322	,328
Respondent 9	,407*	,336	,165
Respondent 10	,315	,224	,097
Respondent 16	,343	,702*	,073
Respondent 7	-,195	,685*	,110
Respondent 30	,015	,650*	,374
Respondent 20	,363	,645*	-,074
Respondent 26	,354	,623*	,052
Respondent 31	-,018	,598*	,390
Respondent 15	,212	,590*	,326
Respondent 3	,340	,487*	,150
Respondent 12**	,405	,484*	-,054
Respondent 18	,314	,389	,253
Respondent 21	-,229	,369	-,134
Respondent 11	,225	,289	,239
Respondent 28	,126	,214	,682*
Respondent 2	,041	,266	,669*
Respondent 22**	,469	,214	,654*
Respondent 4	,152	-,034	,643*
Respondent 19**	,565	-,051	,600*
Respondent 36	,135	,316	-,479
Respondent 25**	,428	,264	,460
Respondent 23**	,412	,376	,449
Respondent 8**	,435	,184	,443
EV	31,23	7,20	6,11
Defining sorts	16	9	5
Acceptable factor?	Yes	Yes	Yes

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:*
  > factor loading > 2,58/$\sqrt{N}$; and
  > $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 44,55%
Total number of defining sorts: 30

Table D.3: Four-factor solution

Respondents	Factor 1	Factor 2	Factor 3	Factor 4
Respondent 27	,747*	,227	,013	,134
Respondent 29	,723*	,060	,218	-,080
Respondent 8**	,642*	,074	,426	-,059
Respondent 33	,625*	,041	-,043	,215
Respondent 5	,617*	,341	-,093	,079
Respondent 34	,595*	,052	,017	,001
Respondent 1	,570*	,356	,151	,124
Respondent 40	,566*	,239	,020	,397
Respondent 19**	,528	-,002	,418	,480
Respondent 32**	,512	,432	,165	,220
Respondent 37	,472*	,290	,349	,051
Respondent 14	,457*	,202	,292	,136
Respondent 38	,450	,330	,325	,194
Respondent 9	,443*	,326	,214	-,037
Respondent 18	,356	,329	,328	-,042
Respondent 16	,124	,754*	,240	,091
Respondent 20	,133	,743*	,084	,060
Respondent 35	,293	,679*	-,042	,255
Respondent 26	,262	,633*	,210	-,056
Respondent 12	,265	,573*	,048	,027
Respondent 15**	,062	,551*	,454	,147
Respondent 39	,373	,546*	,015	,224
Respondent 3	,195	,525*	,240	,122
Respondent 13**	,304	,488	,191	,443
Respondent 7	-,108	,459	,400	-,403
Respondent 36	,055	,419	-,339	-,242
Respondent 10	,098	,346	,087	,304
Respondent 11	,031	,342	,254	,299
Respondent 2	,118	,071	,698*	,119
Respondent 28**	,018	,134	,648*	,416
Respondent 30**	,116	,425	,590*	-,235
Respondent 22**	,438	,183	,581	,364
Respondent 31	,021	,401	,579*	-,126
Respondent 4**	,424	-,241	,576*	-,006
Respondent 23	,386	,338	,471	,171
Respondent 17**	,428	,297	,438	,322
Respondent 21	,082	,127	,106	-,695
Respondent 6	,158	,101	,102	,667*
Respondent 25	,140	,373	,394	,585*
Respondent 24	,299	,311	,104	,454*
EV	31,23	7,20	6,11	5,63
Defining sorts	11	8	5	3
Acceptable factor?	Yes	Yes	Yes	Yes

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:*
  > factor loading > 2,58/$\sqrt{N}$; and
  > $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 50,18%
Total number of defining sorts: 24

Table D.4: Five-factor solution

Respondents	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Respondent 16**	,624*	,092	,500	-,040	-,023
Respondent 20	,618*	,120	,401	-,167	-,059
Respondent 35	,616*	,296	,292	-,216	,137
Respondent 3	,615*	,155	,206	,105	-,069
Respondent 13	,595*	,277	,217	,095	,294
Respondent 11	,588*	-,011	,013	,203	,082
Respondent 10	,584*	,077	-,065	,065	,089
Respondent 39	,566*	,365	,195	-,094	,083
Respondent 1**	,540	,535	,033	,151	-,087
Respondent 25**	,519	,094	,270	,295	,466
Respondent 17**	,508	,364	,175	,406	,143
Respondent 23	,494	,317	,234	,397	-,004
Respondent 24	,456*	,284	,083	,083	,331
Respondent 18	,403	,304	,202	,247	-,191
Respondent 27	,315	,736*	,045	,059	,023
Respondent 29	,173	,682*	,046	,284	-,188
Respondent 5	,183	,630*	,272	-,159	,092
Respondent 33	,257	,619*	-,172	,094	,083
Respondent 34	-,096	,596*	,230	,018	,080
Respondent 8**	,227	,574*	,118	,461	-,192
Respondent 40	,245	,567*	,179	,017	,375
Respondent 32**	,283	,496	,447	,027	,225
Respondent 31	,075	-,041	,769*	,271	-,033
Respondent 12	,208	,270	,607*	-,212	,110
Respondent 37**	,043	,437	,589*	,186	,141
Respondent 26	,371	,238	,583*	-,060	-,068
Respondent 7	,171	-,158	,582*	,098	-,391
Respondent 38**	,150	,418	,534	,175	,247
Respondent 15**	,481	,006	,506	,212	,063
Respondent 9**	,095	,421	,486*	,062	,018
Respondent 30	,373	,033	,461	,372	-,348
Respondent 14**	,038	,428	,454	,189	,205
Respondent 2	,359	,018	,114	,679*	-,071
Respondent 4	-,072	,344	,096	,659*	-,049
Respondent 22	,325	,363	,309	,538	,270
Respondent 28**	,190	-,055	,410	,535	,405
Respondent 19**	,205	,475	,126	,485	,409
Respondent 36	,189	,096	,138	-,479	-,244
Respondent 21	,026	,052	,082	,024	-,761
Respondent 6	,228	,155	,075	,122	,646*
EV	31,23	7,20	6,11	5,63	5,02
Defining sorts	9	7	6	2	1
Acceptable factor?	Yes	Yes	Yes	Yes	No

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:*
  > factor loading > 2,58/$\sqrt{N}$; and
  > $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 55,20%
Total number of defining sorts: 22

Table D.5: Six-factor solution

Respondents	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Respondent 35	,691*	,262	-,001	,268	-,056	-,034
Respondent 20	,684*	,252	-,049	,141	-,008	,222
Respondent 16**	,659*	,480	,155	-,123	-,024	,119
Respondent 13	,625*	,170	,084	,296	,275	-,129
Respondent 3	,605*	,091	,187	,116	,140	,165
Respondent 39	,586*	,300	,271	,127	-,140	-,124
Respondent 10	,567*	-,168	,081	,139	,173	-,028
Respondent 25**	,526	,260	,094	,062	,485	-,257
Respondent 11	,518*	,094	,370	-,297	,078	-,158
Respondent 15	,500	,372	,066	-,025	,335	,179
Respondent 24	,468*	,138	,144	,222	,181	-,267
Respondent 37	,087	,693*	,233	,235	,155	,002
Respondent 38	,192	,671*	,242	,187	,164	-,122
Respondent 32	,326	,660*	,317	,163	-,048	-,210
Respondent 31	,119	,626*	-,015	-,065	,370	,354
Respondent 9	,130	,620*	,277	,153	-,047	,022
Respondent 12	,333	,570*	-,151	,275	-,022	,104
Respondent 14	,084	,509*	,146	,354	,238	-,035
Respondent 26**	,450	,450	-,025	,256	,077	,295
Respondent 4	-,201	,277	,701*	-,023	,288	-,035
Respondent 8	,139	,171	,646*	,346	,186	,156
Respondent 1**	,481	,176	,600*	,197	-,099	-,058
Respondent 27**	,300	,236	,508	,468	-,135	-,147
Respondent 19	,153	,327	,482	,230	,393	-,380
Respondent 23**	,438	,212	,440	,156	,309	,083
Respondent 18	,353	,187	,423	,116	,088	,195
Respondent 34	-,034	,235	,053	,691*	,092	,044
Respondent 40	,315	,200	,022	,668*	,220	-,214
Respondent 5	,267	,307	,067	,642*	-,074	-,009
Respondent 29**	,125	,059	,493	,599*	,104	,169
Respondent 33	,227	-,047	,389	,511*	-,019	-,190
Respondent 28	,195	,239	-,062	,126	,815*	-,011
Respondent 22	,296	,263	,301	,353	,610	-,039
Respondent 2**	,237	,001	,446	-,069	,564*	,184
Respondent 17**	,476	,067	,282	,407	,486	,043
Respondent 36	,262	,126	-,111	,049	-,479	,178
Respondent 6	,236	,367	,177	-,125	,152	-,672
Respondent 21	-,034	-,046	,289	-,056	-,279	,651*
Respondent 7	,198	,311	-,064	-,092	,150	,635*
Respondent 30	,323	,291	,320	-,086	,259	,496
EV	31,23	7,20	6,11	5,63	5,02	4,46
Defining sorts	9	7	3	5	2	2
Acceptable factor?	Yes	Yes	Yes	Yes	Yes	Yes

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:*
  > factor loading > 2,58/$\sqrt{N}$; and
  > $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 59,66%
Total number of defining sorts: 19

Table D.6: Seven-factor solution

Respondents	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Respondent 20	,711*	,080	,098	,130	-,051	,256	,141
Respondent 12	,702*	,331	,017	,263	-,033	-,216	-,020
Respondent 3	,681*	-,052	,379	,025	,160	,094	,052
Respondent 15	,605*	,238	,090	-,017	,324	,144	,141
Respondent 26	,587*	,274	,044	,281	,040	,099	,249
Respondent 16**	,558	,430	,127	-,104	-,051	,409	,176
Respondent 13	,544	,098	,225	,262	,244	,330	-,177
Respondent 39	,495	,281	,389	,055	-,131	,265	-,119
Respondent 24	,392	,122	,272	,166	,176	,231	-,296
Respondent 38	,102	,732*	,081	,256	,139	,272	,039
Respondent 32	,244	,715*	,251	,169	-,048	,245	-,081
Respondent 37	,254	,654*	,166	,256	,171	-,074	,067
Respondent 9	,184	,625*	,197	,168	-,034	,033	,120
Respondent 6	,074	,510*	,116	-,134	,160	,273	-,562
Respondent 31	,399	,476	-,139	,020	,360	-,101	,366
Respondent 14	,198	,469	,120	,377	,234	-,023	,003
Respondent 19**	,036	,453	,427	,188	,432	,170	-,273
Respondent 1	,294	,244	,678*	,083	-,048	,266	,000
Respondent 8	,094	,220	,649*	,260	,253	,024	,215
Respondent 27	,194	,290	,621*	,362	-,094	,121	-,105
Respondent 33	,200	-,036	,605*	,369	,032	-,026	-,244
Respondent 4**	-,259	,452	,502	-,064	,383	-,050	,133
Respondent 23	,324	,224	,438	,114	,330	,273	,130
Respondent 18	,206	,216	,389	,088	,103	,271	,269
Respondent 34	,047	,178	,124	,699*	,068	-,070	,033
Respondent 40	,193	,183	,119	,680*	,159	,288	-,207
Respondent 5	,291	,229	,205	,624*	-,106	,079	-,032
Respondent 29**	-,136	,154	,456	,582	,099	,297	,286
Respondent 28	,169	,204	-,186	,229	,759*	,266	,025
Respondent 2**	,336	-,040	,471	-,155	,642*	-,063	,139
Respondent 22	,173	,289	,239	,375	,593*	,309	,031
Respondent 36	,200	,068	-,055	,064	-,521	,165	,179
Respondent 25**	,383	,264	,086	,080	,451	,417	-,225
Respondent 10	,091	-,086	,057	,177	,091	,751*	,056
Respondent 35	,392	,248	,035	,312	-,147	,637*	,025
Respondent 11	,098	,255	,244	-,298	,071	,635*	,000
Respondent 17**	,228	,087	,283	,414	,448	,479	,093
Respondent 21	-,061	-,061	,214	-,066	-,251	-,023	,698*
Respondent 7	,273	,180	-,199	,014	,104	,131	,664*
Respondent 30	,292	,246	,194	-,056	,265	,213	,565*
EV	31,23	7,20	6,11	5,63	5,02	4,46	4,21
Defining sorts	5	5	4	3	3	3	3
Acceptable factor?	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note:

- *numbers in black indicate significant factor loadings, so > 2,58/$\sqrt{N}$. Respondents with no significant loadings are 'non-loaders'*
- ** indicates a defining sort, meaning:*
  > factor loading > 2,58/$\sqrt{N}$; and
  > $f^2 > h^2/2$
- *** indicates a confounding sort, i.e.: its loadings are significant on multiple factors*

Cumulative Explained Variance: 63,87%
Total number of defining sorts: 14

E

Q-analysis applicable solution

E.1 Idealized Q-sorts

The factor arrays as provided in chapter 5.2 can be formatted into the Q-grid that was used in this research. This way, idealized Q-sorts are made for each factor, which are depicted in the figures below.

Least important **Factor 1** *Most important*

-4	-3	-2	-1	0	1	2	3	4
29	24	12	13	21	17	4	37	23
31	8	20	30	10	38	5	27	3
	22	26	28	9	2	33	32	
		19	18	40	7	11		
		39	25	1	6	35		
			16	34	15			
				14				
				36				
				41				

Figure E.1: Idealized Q-sort of factor 1

Least important **Factor 2** *Most important*

-4	-3	-2	-1	0	1	2	3	4
22	27	8	17	40	32	39	37	19
5	9	7	13	3	33	41	25	24
	26	31	34	36	12	23	18	
		35	21	28	4	29		
		15	38	2	14	11		
			20	16	6			
				10				
				30				
				1				

Figure E.2: Idealized Q-sort of factor 2

Least important				***Factor 3***				*Most important*
-4	-3	-2	-1	0	1	2	3	4
23	8	37	39	36	3	14	25	27
10	18	22	6	21	12	13	40	24
	41	34	4	11	38	33	29	
		19	35	7	17	5		
		26	2	20	28	16		
			15	31	30			
				1				
				9				
				32				

Figure E.3: Idealized Q-sort of factor 3

Least important				***Factor 4***				*Most important*
-4	-3	-2	-1	0	1	2	3	4
32	35	14	9	8	25	33	10	23
41	31	6	38	5	34	29	22	1
	4	40	17	2	7	16	3	
		20	18	26	30	12		
		27	13	21	37	28		
			39	24	36			
				15				
				11				
				19				

Figure E.4: Idealized Q-sort of factor 4

E.2 Respondents' characteristics per factor for the applicable factor-solution

Table E.1 gives an overview of the characteristics of the respondents that belong to each factor. The four respondents that don't load significantly on any of the factors are considered to belong to none of the factors and these are indicated by the colored rows.
For the group column, the following numbers are attributed to the different options: 1 for developer, 2 for consulting organization, 3 for (decentralized) government, and 4 for (resident) advocacy organization. The numbers in the columns 'work experience' and 'development process phase' correspond to the numbering of the answer options as given in appendix A. For the former, this was as follows: 0-5 years experience (1), 5-10 years experience (2), 10-15 years experience (3), 15-20 years experience (4), and 20+ years experience (5). For the latter, the choice was between the following: initiative phase (1), definition phase (2), design phase (3), and execution phase (4). The numbers for the column 'participation processes' were filled in by the respondents themselves and are therefore not categorized.

Table E.1: Characteristics for the four-factor solution

Respondent	Group	Work experience	Development process phase	Participation processes	Factor
27	2	2	1	5	1
29	1	2	3	5	1
8	1	5	3	15	1
33	2	1	3	1	1
5	4	5	4	2	1
34	4	1	1	7	1
1	2	5	3	5	1
40	4	3	4	6	1
19	1	1	1	20	1
32	3	5	4	10	1
37	2	2	3	3	1
14	2	4	4	10	1
38	3	4	3	6	1
9	2	5	3	15	1
16	2	5	1	25	2
20	1	5	3	2	2
35	4	5	2	4	2
26	1	5	3	10	2
12	3	1	3	1	2
15	2	3	1	15	2
39	2	5	3	6	2
3	2	5	4	2	2
13	4	5	3	2	2
7	2	2	4	2	2
36	1	5	4	3	2
2	3	2	3	4	3
28	3	3	3	50	3
30	3	4	1	10	3
22	3	2	4	3	3
31	1	4	1	6	3
4	2	3	4	10	3
23	3	5	3	15	3
17	3	1	4	3	3
6	3	2	4	30	4
25	4	1	3	10	4
24	4	4	3	15	4
18	1	1	4	2	-
10	2	2	3	2	-
11	1	4	1	5	-
21	2	5	3	10	-

F

Dependence-analysis solutions

Table F.1: Results dependence-analysis 'Groups'

		Perspective 1	Perspective 2	Perspective 3	Perspective 4	Total
Developer	Count	3	3	1	0	7
	Expected Count	2,7	2,1	1,6	0,6	7,0
	% within Group	42,9%	42,9%	14,3%	0,0%	100,0%
Consulting organization	Count	6	5	1	0	12
	Expected Count	4,7	3,7	2,7	1,0	12,0
	% within Group	50,0%	41,7%	8,3%	0,0%	100,0%
(Decentralized) government	Count	2	1	6	1	10
	Expected Count	3,9	3,1	2,2	0,8	10,0
	% within Group	20,0%	10,0%	60,0%	10,0%	100,0%
(Resident) advocacy organization	Count	3	2	0	2	7
	Expected Count	2,7	2,1	1,6	0,6	7,0
	% within Group	42,9%	28,6%	0,0%	28,6%	100,0%
Total	Count	14	11	8	3	36
	Expected Count	14,0	11,0	8,0	3,0	36,0
	% within Group	38,9%	30,6%	22,2%	8,3%	100,0%
	Value	**df**	**Asymptotic Sig. (2-sided)**	**Exact Sig. (2-sided)**		
Pearson Chi-Square	17,853*	9	0,037	0,030		
Fisher Exact Test	14,306			0,052		
N of Valid Cases	36					

** 16 cells (100,0%) have expected count less than 5. The minimum expected count is 0,58*

Table F.2: Results dependence-analysis 'Work experience'

		Perspective 1	Perspective 2	Perspective 3	Perspective 4	Total
0 - 5 years	Count	3	1	1	1	6
	Expected Count	2,3	1,8	1,3	0,5	6,0
	% within Group	50,0%	16,7%	16,7%	16,7%	100,0%
5 - 10 years	Count	3	1	2	1	7
	Expected Count	2,7	2,1	1,6	0,6	7,0
	% within Group	42,9%	14,3%	28,6%	14,3%	100,0%
10 - 15 years	Count	1	1	2	0	4
	Expected Count	1,6	1,2	0,9	0,3	4,0
	% within Group	25,0%	25,0%	50,0%	0,0%	100,0%
15 - 20 years	Count	2	0	2	1	5
	Expected Count	1,9	1,5	1,1	0,4	5,0
	% within Group	40,0%	0,0%	40,0%	20,0%	100,0%
20+ years	Count	5	8	1	0	14
	Expected Count	5,4	4,3	3,1	1,2	14,0
	% within Group	35,7%	57,1%	7,1%	0,0%	100,0%
Total	Count	14	11	8	3	36
	Expected Count	14,0	11,0	8,0	3,0	36,0
	% within Group	38,9%	30,6%	22,2%	8,3%	100,0%
	Value	**df**	**Asymptotic Sig. (2-sided)**	**Exact Sig. (2-sided)**		
Pearson Chi-Square	13,104*	12	0,361	0,382		
Fisher Exact Test	13,289			0,240		
N of Valid Cases	36					

** 19 cells (95,0%) have expected count less than 5. The minimum expected count is 0,33*

Table F.3: Results dependence-analysis 'Development process phase'

		Perspective 1	Perspective 2	Perspective 3	Perspective 4	Total
Initiative phase	Count	3	2	2	0	7
	Expected Count	2,7	2,1	1,6	0,6	7,0
	% within Group	42,9%	28,6%	28,6%	0,0%	100,0%
Definition phase	Count	0	1	0	0	1
	Expected Count	0,4	0,3	0,2	0,1	1,0
	% within Group	0,0%	100,0%	0,0%	0,0%	100,0%
Design phase	Count	7	5	3	2	17
	Expected Count	6,6	5,2	3,8	1,4	17,0
	% within Group	41,2%	29,4%	17,6%	11,8%	100,0%
Execution phase	Count	4	3	3	1	11
	Expected Count	4,3	3,4	2,4	0,9	11,0
	% within Group	36,4%	27,3%	27,3%	9,1%	100,0%
Total	Count	14	11	8	3	36
	Expected Count	14,0	11,0	8,0	3,0	36,0
	% within Group	38,9%	30,6%	22,2%	8,3%	100,0%
	Value	**df**	**Asymptotic Sig. (2-sided)**	**Exact Sig. (2-sided)**		
Pearson Chi-Square	3,642*	9	0,933	0,974		
Fisher Exact Test	4,705			0,988		
N of Valid Cases	36					

** 14 cells (87,5%) have expected count less than 5. The minimum expected count is 0,08*

Table F.4: Results dependence-analysis 'Participation processes'

		Perspective 1	Perspective 2	Perspective 3	Perspective 4	Total
< 10 processes	Count	9	8	4	0	21
	Expected Count	8,2	6,4	4,7	1,8	21,0
	% within Group	42,9%	38,1%	19,0%	0,0%	100,0%
10 - 20 processes	Count	4	2	3	2	11
	Expected Count	4,3	3,4	2,4	0,9	11,0
	% within Group	36,4%	18,2%	27,3%	18,2%	100,0%
20+ processes	Count	1	1	1	1	4
	Expected Count	1,6	1,2	0,9	0,3	4,0
	% within Group	25,0%	25,0%	25,0%	25,0%	100,0%
Total	Count	14	11	8	3	36
	Expected Count	14,0	11,0	8,0	3,0	36,0
	% within Group	38,9%	30,6%	22,2%	8,3%	100,0%
	Value	**df**	**Asymptotic Sig. (2-sided)**	**Exact Sig. (2-sided)**		
Pearson Chi-Square	5,883*	6	0,436	0,446		
Fisher Exact Test	6,495			0,326		
N of Valid Cases	36					

** 10 cells (83,3%) have expected count less than 5. The minimum expected count is 0,33*